

Administrator at the Administrator's request.

§ 73.76 Approval and exercise of the IPP written guarantee.

(a) *First come, first served.* The Administrator will process and approve or disapprove, in whole or in part, applications received on or after the effective date of the regulations. The Administrator will issue guarantees pursuant to approved applications according to the order in which applications are received, as indicated by the date and time stamped on the applications upon arrival at the destination indicated in § 73.75(c).

(b) *Oversubscription to the IPP written guarantee program.* Applications received after all allowances in the Direct Sale Subaccount have become subject to written guarantees or when there is an insufficient number of allowances available to satisfy the amount requested for any year covered by the guarantee will be included on a waiting list and ranked in order of time and date of receipt. In the event that an IPP guarantee is terminated pursuant to § 73.74(e), the Administrator will process applications on the waiting list by rank order and will issue guarantees pursuant to any approved application.

(c) *Deficient applications.* The Administrator may, in his or her discretion, return applications that fail to meet the requirements set forth in §§ 73.75 (a), and (b) if applicable. Revised applications will be processed according to the date and time of receipt of such revised applications.

(d) *Notification of approval.* The Administrator will issue a written guarantee pursuant to each approved application within 30 calendar days of receipt, provided that there is a sufficient number of allowances available to satisfy the guarantee for each year covered by the guarantee at the time the application is processed.

(e) *Certification of continued need for the guarantee.* (1) By no later than June 30 and December 31 of 1992 and no later than December 31 of each year thereafter, the certifying official for a unit for which a guarantee has been issued shall certify, through written notification, to the Administrator that the unit continues to require allowances subject to the guarantee pursuant to § 73.75.

(2) As soon as a unit for which a guarantee has been issued is no longer in need of any or all of the allowances subject to the guarantee, the certifying

official shall notify the Administrator, in writing, of the number of allowances that are no longer needed. Pursuant to the terms of the notification, the Administrator will reduce the number of allowances subject to the guarantee or terminate the guarantee.

(f) *Exercise of guarantee.* Allowances may be purchased in each year for those years for which the guarantee has been issued provided that they are purchased for the unit for which the guarantee has been issued. In any year, the certifying official of a unit for which a guarantee is issued may purchase any number of allowances up to the maximum number specified in the guarantee for such year. Allowances purchased through guarantees will be fully transferable.

(1) *Notification and response.* To exercise a written guarantee, the certifying official shall notify the Administrator of the number of allowances to be purchased. Such notification shall be in writing and signed by the certifying official pursuant to § 73.75(d). The Administrator, following public notice, may require or permit a method or methods of electronic transfer of this information. The Administrator will respond to the written notification within 5 business days after receipt by sending the certifying official a statement of the exact price for the allowances and where to send payment. If the certifying official does not have an account in the Allowance Tracking System, the New Account/New Authorized Account Representative Form shall be completed and mailed with payment.

(2) *Payment.* Certifying officials shall purchase allowances by certified check for the total amount or by some method of electronic transfer or other instrument, if the Administrator, following public notice, so requires or permits at some future time. The certified check shall be made payable to U.S. EPA.

(3) *Time period to exercise.* Notification to exercise a guarantee shall be received by the Administrator no later than April 15th of the calendar year in which allowances are to be purchased. Payment for allowances shall be collected by the Administrator no later than May 15th of that same year. If the direct sales program has been terminated pursuant to § 73.73(b), notification and payment may occur at any time prior to the allowance transfer deadline for each year in which allowances are to be purchased.

(g) Transfer of allowances.

Allowances will be transferred into the unit's allowance system account as soon as full payment is collected.

(h) *Transfer of proceeds.* The Administrator will pay all proceeds from the exercise of written guarantees pursuant to § 73.72(p).

§ 73.77 Relationship of the independent power producers written guarantees to the direct sale subaccount.

(a) *Reserving allowances in the Direct Sale Subaccount.* The Administrator will make available up to 50,000 yearly allowances in the direct sales subaccount for written guarantees. The Administrator will first reserve for IPP guarantees the 25,000 yearly allowances in the advance sale category. If more than 25,000 yearly allowances are subject to guarantees, the excess allowances needed will be reserved from the spot allowance category, up to 25,000 each year.

(b) *Adjustment of the direct sale schedule.* If fewer than 25,000 advance allowances are subject to written guarantees for any year from 2000 through 2006, any remaining advance allowances will be sold in the advance sale seven years preceding that year. If all 25,000 advance allowances are reserved for written guarantees for 2000 through 2006, the direct sale will begin in the year 2000 and will consist only of spot sales of allowances not sold pursuant to written guarantees.

(c) *Continuation of the guarantee.* Termination of the direct sale will not affect IPP written guarantees which will continue in effect for the operating life of the unit or 30 years, whichever is shorter, unless terminated pursuant to § 73.74(e).

(d) *Guaranteed allowances not sold.* If a certifying official of a unit for which a guarantee is issued chooses not to exercise the guarantee for a year in which allowances are reserved, the allowances will be offered for sale in the direct sale beginning on June 1 of that year. In the event the direct sale is terminated, any unsold allowances will be transferred to the Auction Subaccount pursuant to § 73.72(q).

Subpart F—Conservation and Renewable Energy Reserve [Reserved]

§§ 73.80-73.89 [Reserved]

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ENVIRONMENTAL PROTECTION AGENCY

(FRL-4039-3)

Request for Delegation Proposals to Administer the Auctions and Direct Sale and Request for Public Comment

AGENCY: Environmental Protection Agency.

ACTION: Notice of EPA request for delegation proposals to administer the auctions and direct sale under section 416 of the Clean Air Act amendments of 1990, and request for public comment.

SUMMARY: Pursuant to title IV of the Clean Air Act Amendments of 1990 ("the Act"), the Administrator must promulgate regulations to reduce emissions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x), precursors of acid rain. The centerpiece of the SO₂ control program is the allocation of transferable allowances, or authorizations to emit SO₂, which are distributed in limited quantities for existing utility units and which eventually must be held by all utility units to cover their SO₂ emissions. These allowances may be transferred among polluting sources and others, so that market forces may govern their ultimate use and distribution, resulting in the most cost-effective sharing of the emissions control burden. In order to stimulate and support such a market in allowances, and to provide a public source of allowances particularly to new units for which no allowances are allocated, the Administrator is directed under section 416 of the Act to conduct an annual sale and auctions of allowances.

Today, the Administrator promulgated regulations for conducting such sales and auctions, as well as regulations under which certain independent power producers ("IPP") may obtain written guarantees of the availability of allowances and may exercise priority in purchasing allowances through the direct sale (see 40 CFR part 73).

Along with the publication of these regulations, EPA is, in this notice: (1) Notifying the public of its intent to request proposals for the delegation of the administration of the auctions and direct sale, (and the issuance of allowances for persons holding Independent Power Producer guarantees) under the authority of section 416(f) of the Act; (2) requesting such proposals; and (3) seeking, from any member of the public, comments, with regard to this notice before deciding whether to delegate these functions. EPA reserves its discretion to decline to delegate these functions

following review of proposals and comments submitted pursuant to this notice.

Delegation of these functions shall be administered without compensation from EPA. A delegatee will not be allowed to retain any portion of the monies collected for the sale or auction of allowances or to charge fees to administer these functions. In addition, the delegation will require a strict adherence to the regulations as promulgated today in 40 CFR part 73. EPA will be accepting proposals to administer these programs from candidates who meet the criteria specified in section III of this notice. Demonstration of these criteria will be made by the completion of a delegation application which will explain in more detail the evaluation criteria, the corresponding emphasis EPA places on those criteria, and procedural requirements. Delegation applications may be obtained from EPA at the address listed below.

EPA will hold a public meeting on this notice on the date listed below. The purpose of the public meeting is to explain further, and answer questions about, the objectives and requirements for the delegation.

DATES: Complete proposals, in the form of delegation applications, for undertaking administration of the auctions, direct sale, and IPP written guarantee program, and public comments, must be received, in writing, on or before February 21, 1992. Proposals and public comments should be sent to the address listed below. The public meeting on this notice will be held on January 13, 1992 from 2 p.m. to 4 p.m.

ADDRESSES: U.S. EPA Acid Rain Division (ANR-445), 401 M St., SW., Washington, DC 20460, Attn: Auctions and Direct Sale Delegation.

The public meeting will be held at the address given above in the EPA Conference Center Room 3 North.

FOR FURTHER INFORMATION CONTACT: Linda Reidt Critchfield, EPA/OAIAP/Acid Rain Division (ANR-445), 401 M St., SW., Washington, DC 20460 (202) 260-7915.

SUPPLEMENTARY INFORMATION:

I. Authority

Pursuant to section 416(f) of the Clean Air Act Amendments of 1990, the Administrator may, in his or her discretion, delegate, or contract for, the conduct of sales or auctions under the Administrator's supervision by other departments or agencies of the United States Government or by nongovernmental agencies, groups, or

organizations. The Administrator is considering whether to exercise this discretion under section 416(f) and 40 CFR part 73, § 73.73(a) and to delegate the administration of the auctions, direct sale, and IPP program to the candidate determined by the Administrator to be the most qualified. The Administrator will base this determination on the public comments received and the proposals, in the form of delegation applications, submitted to meet the criteria contained in the delegation application.

II. Functions of the Delegatee in Conducting the Auctions and Direct Sale

In addition to adhering to the applicable requirements for the auctions, direct sale, and IPP program set forth in the regulations promulgated today, and summarized below, a major component in administering the auctions and direct sale would be the interaction between a delegatee's information system and EPA's Allowance Tracking System (ATS). The ATS will issue, record, and track allowances and will be the official computer system for the supply of allowances. For a complete discussion of the ATS, see subpart C (Allowance Tracking System) of the proposed Sulfur Dioxide Allowance System regulations which were published in the Federal Register on December 3, 1991.

The specific duties and the interactions between the ATS and a delegatee would be fully developed when such duties are discussed with the appointed delegatee and when Subpart C (Allowance Tracking System) of 40 CFR part 73 is promulgated. The information system used by a delegatee would need to interface with the ATS in a form compatible with the ATS format.

Listed below are the major steps in conducting the auctions, direct sale, and IPP written guarantee program, pursuant to 40 CFR part 73, subpart E. Though not included in these steps, recordkeeping and tracking functions are also required in the administration of the auctions and direct sale. Almost all the duties listed below would be carried out by a delegatee through electronic methods, unless otherwise specified.

A. Conducting the Auctions

Pursuant to 40 CFR part 73, §§ 73.70 through 73.71, a delegatee would conduct the auctions as follows:

1. The delegatee will receive notice from others offering to sell their allowances in the EPA auctions. The delegatee will notify the ATS of these contributions so that the ATS can place

them in a separate subaccount for offered allowances.

2. EPA will publish notice in the *Federal Register* and *Commerce Business Daily* of the date that the auctions will be held, the total number of allowances to be auctioned, including both those in the EPA Auction Subaccount and those offered by private parties, and any minimum prices specified by private parties. Information about allowances offered by private parties will be provided by the delegatee.

3. The delegatee will receive sealed auction bid forms and a prescribed form of payment from those seeking to purchase allowances in the EPA auctions. The delegatee will deposit certified checks in an EPA-specified bank account. If a letter of credit (LOC) is submitted, the delegatee will hold the LOC until the auctions are completed.

4. The delegatee will review bid forms; if incomplete or incorrect, the delegatee will return the bid form and payment.

5. The delegatee will conduct the auctions by matching allowances and bids.

6. The delegatee will notify the ATS of the results of each auction for the purpose of transferring allowances to winning bidders' accounts and publishing the results of each auction. The delegatee will also notify the ATS of any winning bidders for whom a new account must be established.

7. Within 2 business days of publication of the auction results in the ATS, the delegatee will collect payment from winning bidders using an LOC.

8. The delegatee will deposit the total proceeds from the auctions in an EPA-specified bank account and inform the ATS of this amount.

9. EPA will publish the results of each auction in the *Federal Register* and the *Commerce Business Daily*.

10. The delegatee will return LOCs or send refund checks to losing bidders.

B. Conducting the Direct Sale and Fulfilling the IPP Written Guarantee

Pursuant to 40 CFR part 73, §§ 73.72 through 73.77, a delegatee would conduct the direct sale and the IPP written guarantee program as follows:

Implementing the IPP Written Guarantee

1. The delegatee will receive notification from IPPs choosing to exercise their written guarantees.

2. Not later than five business days after receipt of such notification, the delegatee will send the IPP a statement

confirming the amount and type of allowances requested, the exact price, and payment instructions.

3. The delegatee will receive from IPPs, payment for the total amount of allowances they are requesting to purchase at that time.

4. The delegatee will notify the ATS of the purchases from the IPPs, and deposit all payment proceeds in an EPA-specified bank account.

Implementing the Direct Sale

1. EPA will publish in the *Federal Register* and in the *Commerce Business Daily* notice of the beginning and ending date of the direct sale, and the amount of allowances for sale.

2. The delegatee will receive requests to purchase allowances and notify applicants of approved requests. The delegatee will reserve requested allowances on a first come, first served basis as applications are approved. The delegatee will send notice to approved applicants of the amounts and type of allowances reserved, the date on which approval was made, the exact price, and payment instructions. If the direct sale is oversubscribed, the delegatee will establish a waiting list.

3. The delegatee will process deposits and final payments. The delegatee will transmit to the ATS, account numbers of buyers and purchase amounts as sales are completed. The delegatee will deposit all payments in an EPA-specified bank account.

III. Criteria To Be Used in Selecting an Organization for Delegation

In exercising his or her discretion to delegate the administrations of the auctions, direct sale, and IPP written guarantee program, the Administrator would evaluate applicants based on the following criteria:

1. Ability to process and manage financial instruments such as letters of credit, certified checks, and electronic payment.

2. Knowledge of administering a sealed bid, discriminating form of auction.

3. Experience in developing and using transactional information systems and information transaction processing in commercial applications, comparable to automated bid matching program and interface with the ATS.

4. Experience developing and managing a document control system for recordkeeping and information tracking.

5. Adequate resources, staff, and facilities to meet the implementation requirements of section 416 of the Act.

6. Ability to produce summary reports and analysis of auctions and direct sale results.

7. Knowledge of the Clean Air Act title IV, Section 416 and its implementing regulations and programs.

The delegation application will include a more detailed statement of these criteria and how they will be applied to the proposals. Applicants will also be required to agree to provide the Administrator with advance notice of termination of the delegation not later than eighteen months prior to the time of termination. Applicants must also agree to provide a complete surrender of all documentation, computer software, and any other critical information associated with the administration of the auctions, direct sale, and IPP written guarantee program. Applicants will also be required to explain the linkage the delegation would have to their other ongoing or planned activities or to the interests of any constituency represented by the applicant. The proposal should indicate what legitimate advantage the delegatee will derive from running the auctions, direct sale, and IPP written guarantee program.

IV. Requests for Public Comment

EPA is seeking to delegate the administration of the auctions, direct sale, and IPP written guarantee program for a variety of reasons. EPA has heard from the Acid Rain Advisory Committee (ARAC), utilities, and others, concerns about a government agency such as EPA, with no experience in conducting auctions, administering such functions. This concern was voiced even prior to enactment and is reflected by language in the Act that gives EPA broad discretion to delegate or contract out these functions. As an alternative to EPA administering these functions, EPA explored various options for administering the auctions and direct sales, including other Federal Agencies and Departments, and contracts.

EPA therefore requests comment from the public on the option for delegating the functions described in this notice to a private entity. Such comments will be considered in the review of individual proposals and EPA's decision whether to delegate this program.

Dated: December 4, 1991.

Michael Shapiro,

Acting Assistant Administrator for Air and Radiation.

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Registered Federal Trapper

Tuesday
December 17, 1991

Part IV

Department of the Interior

Office of Surface Mining Reclamation and
Enforcement

30 CFR Parts 761 et al.

Initial and Permanent Regulatory
Programs: Special Categories of Mining;
Surface and Underground Mining
Activities; Final Rule

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Parts 761, 780, 784, 785, 816 and 817

RIN 1029-AA57

Surface Coal Mining and Reclamation Operations; Permanent Regulatory Program; Areas Unsuitable for Mining; Special Categories of Mining; Surface Mining Activities; Underground Mining Activities

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSM) of the U.S. Department of the Interior (DOI) is amending its permanent program permitting and performance standards regulations in several technical areas. The technical areas affected are (1) Backfilling and grading, (2) Approximate original contour (AOC) variances, (3) Disposal of coal mine waste, (4) Definition of values incompatible with surface coal mining operations, (5) Disposal of excess spoil on preexisting benches, and (6) Contemporaneous reclamation practices. Except for the area of disposal of excess spoil on preexisting benches, the amendments are in response to U.S. District Court and Court of Appeals decisions.

In the area of values incompatible with surface coal mining operations, the rule amends the definition of "no significant recreational, timber, economic, or other values incompatible with surface coal mining operations" to eliminate reclamation as a criterion in determining compatibility with surface coal mining operations.

In the area of AOC variances, the rule revises regulations governing permits incorporating variances from AOC restoration requirements to limit their application to steep slope mining.

In the area of disposal of excess spoil on preexisting benches, the rule revises special regulations governing the disposal of excess spoil on preexisting benches for conformance with OSM's generic backfilling and grading regulations. OSM is revising the rules to encourage the reclamation of abandoned highwalls by removing impediments to the use of excess spoil on preexisting benches.

In the area of disposal of coal mine waste, the rule revises former requirements for the disposal of coal mine waste by adding the requirement that coal mine waste be hauled or

conveyed for final placement to the point of disposal. This addition prohibits the final placement of coal mine waste by end or side dumping in any area other than mine workings and excavations. The rule also removes regulatory language cross-referencing the requirements for handling of hazardous noncoal coal mine waste in accordance with the Environmental Protection Agency's (EPA's) Resource Conservation and Recovery Act (RCRA) and its implementing regulations.

In the areas of contemporaneous reclamation and backfilling and grading, the final rule reestablishes backfilling and grading time and distance requirements. The rules require the completion of backfilling and grading within certain times or distances following coal removal, or, for mining methods other than area and contour mining under a schedule established by the regulatory authority, or under case by case time and distance variances approved by the regulatory authority. Also in the context of backfilling and grading to AOC, the rules define "thin overburden" and "thick overburden", and establish performance standards for backfilling and grading in areas of thin and thick overburden.

Finally, existing suspensions of previous regulations are removed where they are superseded by these final regulations.

EFFECTIVE DATE: January 16, 1992.

FOR FURTHER INFORMATION CONTACT: Mr. Dennis M. Hunter, Jr., Office of Surface Mining Reclamation and Enforcement, U.S. Department of the Interior, 1951 Constitution Ave. NW, Washington, DC 20240.

SUPPLEMENTARY INFORMATION:

- I. Background
- II. Discussion of Final Rule and Comments
- III. Procedural Matters

I. Background

These rules amend several technical areas in 30 CFR, chapter VII. These areas have been combined in this rulemaking for administrative convenience. Therefore, the pertinent legislative, regulatory and litigation background for each technical area is discussed separately below.

Where the discussion concerns similarly or identically constructed sections in part 816, which applies to surface mining activities, and part 817, which applies to underground mining activities, these sections are cited together in the heading as §§ 816, [] and 817, []. In such cases the subsequent discussion, while only referring to § 816, [], nevertheless

applies identically to both parts 816 and 817 unless otherwise noted.

A. Section 761.5 Values Incompatible with Surface Coal Mining Operations

Section 522(e)(2) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act), 30 U.S.C.

1272(e)(2), with certain exceptions, prohibits surface coal mining operations on any Federal lands within the boundaries of any national forest [unless] the Secretary finds that there are no significant recreational, timber, economic, or other values which may be incompatible with such surface [coal] mining operations * * *.

The corresponding OSM permanent program regulation appears at 30 CFR 761.11(b).

In implementing this requirement, the 1979 OSM regulations at 30 CFR 761.5 defined the emphasized language in section 522(e)(2) in part to mean:

[T]hose significant values which could be damaged by, and are not capable of existing together with, surface coal mining operations because of the undesirable effects mining would have on those values, either on the area included in the permit application or on off-site areas which could be affected by mining * * *. (44 FR 15341, March 13, 1979).

On June 10, 1982 (47 FR 25278) OSM proposed, and on September 14, 1983 (48 FR 41312) OSM promulgated, a rule revising the 1979 definition. The revised definition dropped the introductory term "no" as unnecessary, changed the phrase "significant values" to "values to be evaluated for their significance," changed the term "offsite areas which could be affected by mining" to "affected areas," and of particular relevance to this proposed rule, inserted after the word "damage" the phrase "beyond an operator's ability to repair or restore."

Thus, following revision in 1983, the corresponding portion of the definition read:

Significant recreational, timber, economic, or other values incompatible with surface coal mining operations means those values to be evaluated for their significance which could be damaged beyond an operator's ability to repair or restore by, and are not capable of existing together with, surface coal mining operations because of the undesirable effects mining would have on those values, either on the area included in the permit application or on other affected areas. 30 CFR 761.5 (1983).

This revised definition was challenged by the citizen and environmental plaintiffs in *In re Permanent Surface Mining Regulation Litigation* (*In re Permanent II* (Round III)), 620 F. Supp. 1519 at 1556-57 (D.D.C. July 15, 1985). The challengers contended that the definition was contrary to the Act

because under it mining could be permitted in national forests as long as reclamation was possible. The U.S. District Court for the District of Columbia agreed with this contention and remanded the definition. *Id.* at 1557. On November 20, 1986, (51 FR 41952) OSM suspended the definition "insofar as the listed values are evaluated for compatibility solely in terms of reclamation." *Id.* at 41960-41961.

OSM appealed, and the U.S. Court of Appeals for the District of Columbia Circuit affirmed the district court ruling. *National Wildlife Federation (NWF) v. Hodel*, 839 F.2d 694, 751-53 (D.C. Cir. 1988). Like the district court, the court of appeals ruled that the revised regulation was contrary to the intent of the Congress and to elementary principles of statutory construction.

On October 31, 1988 (53 FR 43970), OSM proposed to revise the § 761.5 definition of "no significant recreational, timber, economic, or other values incompatible with surface coal mining operations" in conformance with the district court and court of appeals decisions.

B. Sections 785.16, 816.133(d), and 817.133(d)—AOC Variances

Section 515(b)(3) of the Act, 30 U.S.C. 1265(b)(3), generally requires

*** all surface coal mining and reclamation operations [to] backfill, compact (where advisable to insure stability or prevent leaching of toxic materials), and grade in order to restore the approximate original contour of the land with all highwalls, spoil piles, and depressions eliminated (unless small depressions are needed in order to retain moisture to assist revegetation or as otherwise authorized pursuant to this Act).

For steep slope mining, section 515(d)(2), 30 U.S.C. 1265(d)(2), imposes an additional requirement for

[c]omplete backfilling with spoil material *** to cover completely the highwall and return the site to the approximate original contour ***.

The term "approximate original contour", as used in these sections, is defined in section 701(2) of the Act, 30 U.S.C. 1291(2), and in the regulations at 30 CFR 701.5 as "that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain ***."

Sections 515(e)(1) through (e)(6) of the Act, 30 U.S.C. 1265(e)(1) through (e)(6), allow regulatory authorities to permit variances from AOC under certain

circumstances. Section 515(e)(1) allows State regulatory programs, and requires Federal regulatory programs, to include procedures for permitting variances for the purposes set forth in section 515(e)(3). Section 515(e)(2) explicitly allows the regulatory authority to grant a variance from the steep-slope requirement of section 515(d)(2).

Accordingly, on March 13, 1979 (44 FR 15372), OSM promulgated at 30 CFR 785.16 a regulation which authorized the regulatory authority to grant a variance, when certain specified conditions were met, from AOC for steep slope mining which does not involve mountaintop removal. This regulation was challenged by the coal industry in *In re Permanent Surface Mining Regulation Litigation* (In re Permanent I), No. 79-1144, slip op. at 69-70 (D.D.C. February 26, 1980), as unduly restrictive.

In upholding the § 785.16 limitation of AOC variances to steep slope mining, the U.S. District Court for the District of Columbia in *In re Permanent I* said:

Section 515(e) of the Act contains one variance provision: it applies to steep slopes. Rather than calling for a general variance mechanism, section 515(e)(1) establishes the right to apply for a variance * * *. Section 514(e)(2) restricts the variance application to the contour restoration requirements of subsection 515(d)(2) (steep slopes). Whatever ambiguity may be read into section 515 is dispelled upon examination of the legislative history. *Id.* at 69-70.

Subsequently, OSM reconsidered the legislative history of the Act and concluded "that the section allowing for AOC variances was not limited to steep slope operations." (48 FR 39900, September 1, 1983) Accordingly, OSM expanded the coverage of § 785.16 to permit variances from AOC on both steep and non-steep slope terrain, (48 FR 39892, September 1, 1983) as amended at (48 FR 44780, September 30, 1983). At the same time (48 FR 39892, September 1, 1983) OSM revised its regulations governing postmining land use to include at 30 CFR 816.133(d) criteria for permitting variances in accordance with revised § 785.16. OSM set out its rationale for these revisions in a detailed analysis of the legislative history of section 515(e), and of the issues considered by the district court in *In re Permanent I*, (48 FR 39899-900, September 1, 1983).

These revised regulations were challenged by the citizen and environmental plaintiffs in *In re Permanent II* (Round III), 620 F. Supp. at 1574-78. In response, the district court remanded the revised regulations "as inconsistent with law to the extent they permit[ed] a variance beyond the

variance for steep slopes embodied in 515(e)(2) [of the Act]." *Id.* at 1577-78.

On November 20, 1986 (51 FR 41952), OSM suspended §§ 785.16 and 816.133(d) insofar as they authorized any variance from AOC outside a steep slope area. The district court remand was appealed by the coal industry, and affirmed by the court of appeals in *NWF v. Hodel*, 839 F.2d at 761-64. In affirming the district court, the court of appeals "relied] on the text of sec. 515(e)(2), which specifically states that variances may be granted from the AOC requirements of section 515(d)(2), the steep slope mining provision; it does not, as enacted, state that non-steep slope mining AOC requirements may be waived or excused, and neither does it reference section 515(b)(3), the general AOC provision." *Id.* at 763. The court of appeals found nothing in the legislative history that would change its reading of section 515(e). *Id.* at 764.

On October 31, 1988, OSM proposed to revise § 785.16, and to remove the suspension of that section and of §§ 816.133(d) and 817.133(d), in conformance with the district court and court of appeals decisions (53 FR 43970).

C. Sections 816.74 and 817.74—Disposal of Excess Spoil on Preexisting Benches

Section 515(b)(22) of the Act, 30 U.S.C. 1265(b)(22), specifies the performance standards for disposing of excess spoil from surface coal mining and reclamation activities. Section 516(b)(10) of the Act, 30 U.S.C. 1266(b)(10), provides similar performance standards for underground mining activities.

OSM implements these statutory performance standards at 30 CFR 816.71 through 816.74 for surface mining activities and 30 CFR 817.71 through 817.74 for underground mining activities. Section 816.74 and § 817.74, which are affected by this rule, govern the disposal of excess spoil on preexisting benches.

The 1979 OSM permanent program rules did not specifically provide for the disposal of excess spoil on preexisting benches. Regulations to allow the disposal of excess spoil on preexisting benches were originally proposed by OSM on May 16, 1980 (45 FR 32331). As a result of public comment, these regulations were repropoed in substantially different form on July 20, 1981 (46 FR 37283). Final regulations were issued on April 29, 1982 (47 FR 18553), as 30 CFR 816.75.

On June 8, 1982 (47 FR 24954), as part of an overall revision of its excess spoil regulations, OSM proposed to revise § 816.75. The revised (and renumbered) regulations were promulgated on July 29, 1983 (48 FR 32910), as 30 CFR 816.74.

Paragraphs (a) through (d) of these rules were essentially the same as the 1982 regulations. A new paragraph, (e), was added to allow the disposal of excess spoil from an upper, actively-mined bench to a lower, preexisting bench by means of gravity transport in certain circumstances.

In July 1986, OSM released a study titled, "Encouraging Abandoned Mine Reclamation Via Remining: A Federal, State and Industry Initiative" for public review and comment. On September 23, 1986, OSM held a public meeting in Washington, DC, to discuss the study's proposed initiatives. Copies of the study and a transcript of the public meeting have been placed in the administrative record for this rule.

One of the initiatives proposed in the study and discussed at the public meeting was "Reclaiming Abandoned Mine Lands with Excess Spoil." Included under this proposal was the disposal of excess spoil on preexisting benches, and, particularly, whether the requirements for such disposal were excessive as compared to the requirements for backfilling and grading. Both in written comments and at the public meeting, commenters pointed out that the differences in the rules were inconsistent with the similarity in topography, geology, and physical and engineering characteristics between preexisting and actively mined benches.

On October 31, 1988, OSM proposed revisions to §§ 816.74 and 817.74 to conform their requirements with the backfilling and grading requirements of §§ 816.102 and 817.102 (53 FR 43970).

D. Sections 816.81, 816.89, 817.81, and 817.89—Disposal of Coal Mine Waste

Recognizing the problems posed by improper disposal of coal waste, the Congress included in the Act a number of performance standards governing waste disposal. These performance standards appear in section 515 of the Act, 30 U.S.C. 1265, for surface mining activities, and in section 516 of the Act, 30 U.S.C. 1266, for underground mining activities.

To implement these statutory performance standards, the 1979 permanent program included at 30 CFR 701.5 a definition of "coal processing waste", and at 30 CFR 816.81 to 816.93 (44 FR 15395 and 15422, March 13, 1979), regulations governing the disposal of coal mine waste. Several changes in the 1979 regulations, which are not relevant to this discussion but are noted for completeness, were made on August 18, 1980 (45 FR 54753), and on November 20, 1980 (45 FR 76932).

On September 26, 1983 (43 FR 44006), OSM promulgated at 30 CFR 701.5 a

revised definition of "coal processing waste", and new definitions of "coal mine waste", "impounding structure", and "refuse pile". At the same time (48 FR 44006), OSM promulgated at 30 CFR 816.81, 816.83, 816.84, 816.87 and 816.89, a comprehensive revision of the 1979 regulations. These new regulations were challenged in *In re Permanent II* (Round III), 620 F. Supp. at 1534-38.

In *In re Permanent II* (Round III) involved two coal waste issues that are dealt with in this rulemaking: (1) Controlled transport of coal waste; and (2) Environmental Protection Agency (EPA) regulations on hazardous wastes.

1. Sections 816.81(a) and 817.81(a)—Controlled Transport of Coal Waste

In *In re Permanent II* (Round III) the district court rejected §§ 816.81(a) and 817.81(a) as arbitrary and capricious to the extent they allowed end or side dumping of coal mine waste, a mining practice in "hill and valley" topographic areas of placing material at a disposal site by means of gravity. 620 F. Supp. at 1534-35.

On November 20, 1986 (51 FR 41952), OSM suspended §§ 816.81(a) and 817.81(a) insofar as they allowed end or side dumping of coal mine waste. On October 31, 1988 (53 FR 43970), OSM proposed to amend these sections by prohibiting end or side dumping of coal mine waste in regard to final placement disposal, and to simultaneously remove the suspension of the earlier version in conformance with the district court decision.

2. Sections 816.89(d) and 817.89(d)—EPA Regulations on Hazardous Wastes

Section 816.89(d) of the 1983 regulations required that "any noncoal [coal] mine waste defined as 'hazardous' under section 3001 of the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580, as amended) and 40 CFR part 261 shall be handled in accordance with the requirements of subtitle C of RCRA and any implementing regulations." (48 FR 44006, 44030 and 44032, September 26, 1983.) As OSM noted in the preamble to the final rule, this was done at the suggestion of the U.S. Environmental Protection Agency (EPA). *Id.* at 44027.

In *In re Permanent II* (Round III), 620 F. Supp. at 1538, the coal industry challenged this section of the regulations, which the district court remanded for lack of adequate notice and comment. The district court said:

Industry challenges this rule because it contends that Congress gave the Secretary exclusive responsibility to regulate every kind of waste at coal mines in SMCRA permits, and expressly provided that EPA's

regulations for hazardous wastes under RCRA shall not be applied to coal mines.

The court need not spend much time detailing the statutory analysis because it concludes that the rule was promulgated without adequate notice and comment under the APA [(Administrative Procedure Act)] * * *

The Secretary * * * did not respond to the Industry's APA challenge, but instead attempted to explain that the rule neither broadens nor diminishes the Secretary's rules on the disposal of noncoal [coal mine] waste. Industry takes a vastly different view of the effect of the regulation, and makes a lengthy argument that has nowhere been considered by the Secretary prior to this litigation. Second, Industry is able to point to legal and practical complications that result from the rules. *Id.*

On November 20, 1986 (51 FR 41952), OSM suspended §§ 816.89(d) and 817.89(d). OSM proposed to remove these sections from its regulations on October 31, 1988 (53 FR 43970).

E. Sections 816.100, 816.101, 816.104(a) and 816.105(a)—Contemporaneous Reclamation and Backfilling and Grading

Section 515(b)(16) of the Act, 30 U.S.C. 1265(b)(16), provides for general performance standards to require surface coal mining and reclamation operations to "insure that all reclamation efforts proceed in an environmentally sound manner and as contemporaneously as practicable with the surface coal mining operations."

In addition, section 515(b)(3) of the Act, 30 U.S.C. 1265(b)(3), with two exemptions, provides for general performance standards requiring that "all surface coal mining operations backfill, compact (where advisable to insure stability or to prevent leaching of toxic materials), and grade in order to restore the approximate original contour of the land with all highwalls, spoil piles, and depressions eliminated (unless small depressions are needed in order to retain moisture to assist revegetation or as otherwise authorized pursuant to this Act)."

As described under heading B., above, the phrase "approximate original contour" is defined as "that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain * * *."

The previously noted exemptions to the AOC restoration requirements of section 515(b)(3) pertain to operations

involving either "thin" or "thick" overburden. With respect to thin overburden, section 515(b)(3) provides

[t]hat in surface coal mining which is carried out at the same location over a substantial period of time where the operation transects the coal deposit, and the thickness of the coal deposits relative to the volume of the overburden is large and where the operator demonstrates that the overburden and other spoil and waste materials at a particular point in the permit area or otherwise available from the entire permit area is insufficient, giving due consideration to volumetric expansion, to restore the approximate original contour, the operator, at a minimum, shall backfill, grade, and compact (where advisable) using all available overburden and other spoil and waste materials to attain the lowest practicable grade but not more than the angle of repose, to provide adequate drainage and to cover all acid-forming and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region.

With respect to thick overburden, section 515(b)(3) provides

[t]hat in surface coal mining where the volume of overburden is large relative to the thickness of the coal deposit and where the operator demonstrates that due to volumetric expansion the amount of overburden and other spoil and waste materials removed in the course of the mining operations is more than sufficient to restore the approximate original contour, the operator shall after restoring the approximate contour, backfill, grade, and compact (where advisable) the excess overburden and other spoil and waste materials to attain the lowest grade but not more than the angle of repose, and to cover all acid-forming, and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region and that such overburden or spoil shall be shaped and graded in such a way as to prevent slides, erosion, and water pollution and is revegetated in accordance with the requirements of this Act.

The OSM permanent program promulgated on March 13, 1979 included regulations governing contemporaneous reclamation for surface mining activities at 30 CFR 816.100 (44 FR 15411), and backfilling and grading at 30 CFR 816.101, 816.102, 816.104 and 816.105 (44 FR 15411-13. Section 816.100 required reclamation efforts to occur as contemporaneously as practicable with mining operations. Section 816.101 provided time and distance schedules as general requirements for backfilling and grading. Sections 816.104 and 816.105 provided for the thin and thick overburden exemptions authorized by section 515(b)(3) of the Act.

On May 24, 1983 (48 FR 23356), OSM revised its regulations governing contemporaneous reclamation and backfilling and grading. The revision deleted § 816.101 from the regulations,

and added to § 816.100 a provision authorizing regulatory authorities to establish schedules for defining contemporaneous reclamation. At the same time the numerical limits on thin and thick overburden that appeared in §§ 816.104 and 816.105, *i.e.*, plus or minus twenty percent, were deleted (48 FR 23355, May 24, 1983).

The 1983 regulations were challenged in *In re Permanent Surface Mining Regulation* (In re Permanent II (Round II)), 21 ERC 1724, 1744-1746 (D.D.C. October 1, 1984). As a result, the U.S. District Court for the District of Columbia remanded the regulations governing contemporaneous reclamation (§ 816.100; 21 ERC at 1745-46), cut and fill terraces (§ 816.102(g); 21 ERC 1744-45), thin overburden (§ 816.104(a); 21 ERC at 1746), and thick overburden (§ 816.105(a); 21 ERC at 1746). Generally, the district court found that the remanded regulations lacked sufficient guidance to regulatory authorities beyond what was provided in the Act.

OSM appealed the district court ruling, and the court of appeals in *NWF v. Hodel* affirmed the remand with respect to contemporaneous reclamation and thin and thick overburden, but reversed with respect to cut and fill terraces. 839 F.2d at 734-739. The court of appeals said:

We hold, in accord with the Secretary, that the Act does not automatically and inevitably require him to 'flesh out' the prescriptions of sections 515(b)(3) and (b)(16). Nonetheless, we affirm the remand of the contemporaneous reclamation and thin and thick overburden regulations, for only with respect to terracing did the Secretary adequately explain why guidance beyond the statutory requirements sensibly could not be given to local regulators.

We note that the Act expressly commands the Secretary to flesh out certain statutory provisions * * *. Nothing in the Act, however, expressly requires the Secretary to flesh out Sections 515(b)(3) or (b)(16). *Id.* at 734. (Emphasis in original).

"In short," the court of appeals continued,

we read the Act, in light of its legislative history * * * to afford the Secretary discretion, absent an express statutory instruction to regulate, to decide whether fleshing out is appropriate in light of other concerns. Chief among those concerns is the need to accommodate widely varying local conditions that will not admit of a single, nationwide rule * * *. *Id.* at 735. (Footnote omitted).

* * * Under *[Motor Vehicle Mfrs. Ass'n v.] State Farm [Mut. Auto. Inc. Co.]*, 463 U.S. 29, 43 (1983), 'the agency must examine the relevant data and articulate a satisfactory explanation' for the revised regulations * * *. The Secretary's accounting for his actions regarding the contemporaneous reclamation, and thin and thick overburden regulations

fails to meet this standard; we do not find in the rulemaking record any identified factual basis for, or satisfactory explanation of, the Secretary's conclusion that the variety of local conditions warrants regulations on these matters that simply reiterate the relevant prescriptions in sections 515(b)(3) and (b)(16) of the Act. In contrast, we find that the Secretary adequately explained his revision of the terracing regulation. *Id.* at 735.

In affirming the district court remand of the contemporaneous reclamation regulations, the court of appeals said:

Section 515(b)(16) of the Act directs mine operators to reclaim land 'as contemporaneously as practicable [to the] mining operations.' In 1979, the Secretary had issued both a general instruction that reclamation occur 'as contemporaneously as practicable with mining operations,' 30 CFR 816.100 (1982), and specific 'time and distance' standards for backfilling and grading spoil at contour and area strip mines, 30 CFR 816.101 (1982). *Id.* (Footnotes omitted, brackets in original).

The 1983 revision retained the general prescription in § 816.100, but eliminated § 816.101 entirely * * *. To support his deletion, the Secretary commented that "contemporaneous reclamation" is a relative term which must be interpreted by each State on the basis of the mining conditions in its territory. * * * Because § 816.101 was devised to account for local differences, we do not find entirely satisfying, as an explanation for scrapping the regulations entirely, the observation that "contemporaneous reclamation" is a relative term whose precise meaning depends on local conditions. The core deficiency, however, is that the Secretary has published barely more than a *conclusion* that the variety of mining conditions across the nation made § 816.101 of the regulations infeasible. State Farm requires a 'satisfactory explanation,' one that informs us *why* he drew his conclusion. The Secretary, in other words, if he determines there is no need to 'flesh out' the statute, must 'flesh out' his explanation so that we can review the rationality of his decision. *Id.* at 736. (Footnote omitted, emphasis in original).

In affirming the district court remand of the thin and thick overburden regulations, the court of appeals said:

Section 515(b)(3) of the Act directs mine operators to return land to its 'approximate original contour.' The provision contains an exemption, however, for situations where the spoil is either so thin or thick relative to the coal seam that there is insufficient or too much spoil to permit return to approximate original contour. * * * In 1979, the Secretary issued regulations that defined numerically when a variance from the approximate original contour requirement for too little or too much spoil could be granted. 30 CFR 816.104 and 816.105 (1982).

In 1983, the Secretary eliminated the numerical definition, permitting a variance whenever the mine operator demonstrates that spoil is either 'insufficient' or 'more than sufficient' to restore land to its approximate

original contour. 30 CFR 816.104 and 816.105 (1986). The sole support we have found for this revision is the Secretary's cryptic observation that "[t]he mathematical limit * * * has proved to be impractical because of its preciseness." * * * We do not know from this unadorned statement why no adjusted (less precise) or alternate nationwide rule was ordered in place of the one found impractical. Absent fuller statement of the reason for the revision, we cannot intelligently determine whether the Secretary has a 'satisfactory explanation' for his action. *Id.* at 736-737. (Footnotes omitted, brackets in original).

OSM proposed to amend §§ 816.100, 816.104 and 816.105, and to add a new § 816.101, on October 31, 1988 (53 FR 43970), in conformance with the district court and court of appeals decisions.

II. Discussion of Final Rule and Comments

A. General Comments

One commenter requested a 60-day time extension to the comment period in order to allow adequate time to evaluate the nationwide effects of the proposed regulations. The comment period originally was scheduled to end on December 30, 1988. OSM acceded in part to this request by granting an extension of the comment period by 30 days. The extended comment period closed January 30, 1989 (53 FR 52433, December 28, 1988). OSM believes that this extension of time was adequate to meet the needs of the reviewers.

B. Section 761.5 Definitions: Significant Recreational, Timber, Economic, or Other Values Incompatible with Surface Coal Mining Operations

The definition of "significant recreational, timber, economic, or other values incompatible with surface coal mining operations" in final § 761.5 was not changed from that in the proposed rule. In response to the court of appeals decision upholding the district court remand of this definition (see related discussion in I. Background, under the heading A. Values Incompatible with Surface Coal Mining Operations), OSM has amended § 761.5 to eliminate the phrase "beyond an operator's ability to repair." In accordance with the courts' decisions, an operator's ability to reclaim the land may no longer be used as criterion for determining compatibility under this definition.

One commenter supported the deletion or reclaimability as required by section 522(e)(2) of the Act and court decisions. The commenter cautioned OSM against making further changes to this rule without providing for public comment. OSM thanks the commenter for submitting the cautionary remark. No

changes have been made by OSM to § 761.5 following its proposal of October 31, 1988.

C. Section 785.16 Permits Incorporating Variances from AOC: Restoration Requirements for Steep Slope Mining

[Note: For related rulemaking, the reader is directed to heading J., entitled Sections 816.133 and 817.133—AOC Variances]

1. Section Heading

This section heading for § 785.16 has been revised as proposed by adding the phrase "for steep slope mining". The heading reads:

Section 785.16 Permits incorporating variances from approximate original contour restoration requirements for steep slope mining.

The revision is made to emphasize that variances from approximate original contour are authorized only for steep slope surface coal mining and reclamation operations.

2. Section 785.16(a)

Final § 785.16(a) limits the granting of AOC variances to "steep slope, surface coal mining and reclamation operations." The quoted phrase duplicates the corresponding wording of the 1979 regulation and is unchanged from the proposed rule. The November 20, 1988, suspension of § 785.16 which prevented the variance from being applied in non steep slope areas is removed. The variance is itself now limited to steep slope areas.

The language in final § 785.16(a) has been revised from the October 31, 1988 proposed language by adding a cross-reference to § 816.105. This change was made in response to a comment as discussed below.

Thick Overburden

A commenter recommended that § 785.16(a) include a reference to § 816.105, Backfilling and grading: Thick overburden, along with existing references to §§ 816.102, 816.104, 816.107, 817.102 and 817.107 because § 816.105 contains the requirement that not less than AOC be achieved during backfilling and grading in thick overburden situations.

The cross-reference to § 816.105 at § 785.16(a) was inadvertently omitted from the October 31, 1988 proposed rule through a typographical error. A correction to the proposed rule was published (54 FR 19632, May 8, 1989), and the cross-reference to § 816.105 is restored in the final rule.

Restriction to Steep Slope Areas

A commenter stated that the proposed AOC and thin overburden rules do not

account for coal operations in which the overburden is composed in part of noncoal economic minerals which are removed prior to coal extraction. In such cases, according to the commenter, insufficient spoil may remain with which to return to AOC. The commenter asserted that section 515(e)(1) of the Act does not restrict the granting of AOC variances to steep slope areas, and imposing that restriction is contrary to the purpose of the Act.

Contrary to the commenter's assertion that section 515(e)(1) of the Act does not limit AOC variances to steep slope areas, the Federal courts have consistently ruled that this section limits AOC variances to steep slope areas (see discussion at I. Background, under heading B. Sections 785.16, 816.133(d), and 817.133(d)—AOC Variances). OSM will discuss the relationship between thin overburden and recovery of noncoal minerals in the section of this preamble that discusses the thin overburden exemption.

Small Depressions

A western commenter suggested that the scope of AOC variances be expanded in non steep slope areas to include small depressions needed to retain moisture for reclamation or approved postmining land uses such as livestock production which were felt to be authorized by section 515(b)(3). The commenter claimed that the alternative to such depressions is the construction of impoundments through the use of earthen dams and that such construction is not as cost effective or beneficial as depression development and increases the potential both for erosion on constructed slopes and spillways and for dam failure.

As previously noted, the courts have interpreted the provisions of section 515(e) of the Act as restricting AOC variances to steep slope areas. A discussion of the small depressions authorized by section 515(b)(3) is not germane to this rulemaking.

Effects on State Programs and Permitted Operations

The same commenter asserted that limiting variances from AOC to steep slope areas without regard to depression development would threaten the effectiveness of his State reclamation program.

In response to this concern, OSM reviewed the commenter's State program's amendment history. OSM found that the State did not have an approved program amendment which corresponded to previous § 785.16 that allowed variances from AOC for non-

steep slope areas. Accordingly, limiting variances from AOC to steep slope areas should not adversely affect that program.

Another commenter requested that OSM clarify in the final rule that § 785.16 applies prospectively to operations applying for a permit as of the date a State adopts the rule in their program. The commenter pointed out that, in light of prior OSM regulations authorizing variances from AOC for non-steep slope areas, it would be unjust to apply the final rule retroactively to operations which had previously obtained such variances.

OSM cannot agree with the commenter's recommendation that the final rule be applied prospectively. As previously discussed, in I. Background B. Sections 785.16, 816.133(d), and 817.133(d)—AOC Variances, the district and appeals courts have held that the Act restricts the AOC variance provisions of 515(e) to steep slopes. Thus, OSM has no discretion on the issue as to whether to apply the rule prospectively. On two previous occasions, OSM attempted to implement court decisions prospectively. Both attempts were overturned. *NWF v. Lujan*, Nos. 87-1051, 87-1814, and 88-2788, slip op. at 35-51 (D.C.C. February 12, 1990).

OSM further believes the commenter overestimates the impact the final rule will have on the coal industry. Previous § 785.16, which authorized variances from the AOC requirement in non-steep slope areas, was not approved as an amendment to any State program between its promulgation on September

1, 1983, and its suspension by OSM on November 20, 1986.

From the time of promulgation of the previous rule on September 1, 1983 through its suspension on November 20, 1986, that rule was under legal challenge. Even if operators somehow relied upon variances granted under the 1983 rule, there can be little equity in relying upon a position not justified by statute, particularly when such position is contrary to a prior rule upheld by the courts as correctly interpreting the statute. Therefore, in the light of the 1985 district court remand of the 1983 rule as inconsistent with the Act to the extent that they permitted AOC variances in non-steep slope areas, OSM has no legal alternative but to revoke such variances.

D. Sections 816.74 and 817.74 Disposal of Excess Spoil: Preexisting Benches

OSM is revising § 816.74 to conform the requirements for the disposal of excess spoil on preexisting benches with the backfilling and grading requirements of § 816.102 within the framework allowed by section 515(b)(22) of the Act. This action was prompted by public comment to an OSM study on reining initiatives and at a related public meeting. (See related discussion in II. Background, under the heading, C. Disposal of Excess Spoil on Preexisting Benches.)

Comments to the proposed rule suggested that the proposal did not meet the minimum requirements of the Act contained in section 515(b)(22) governing the disposal of excess spoil. In substituting the backfilling and grading sections for the excess spoil disposal references in § 816.74(a),

several provisions required by the Act for disposal of excess spoil that do not have counterparts in the backfilling and grading regulations had to be restored. In preparing the final rule, many of those provisions which were formerly invoked through the cross reference to § 816.71 have now been specifically included in § 816.74.

OSM has maintained the principle of utilizing the backfilling and grading requirements wherever possible because preexisting benches are similar to active mining benches in the regulator controls required. The final rules contain no new regulatory requirements beyond the proposal. In some cases, as will be discussed later, proposed changes are being withdrawn because they could not be accommodated under current law.

Final § 816.74 contains 7 paragraphs. Paragraphs (a) and (b), with one exception, are being issued as they were proposed. Final paragraph 816.74 (c) is the result of combining former paragraphs (b) and (c) with certain requirements from formerly cross-referenced provisions of 816.71 which had been proposed to be deleted but are being retained. Proposed paragraph (e) is being issued as paragraph (d) with one change in addition to the paragraph designation. Final paragraphs (e), (f), and (g) have been added to § 816.74 to account for provisions in 816.71 which do not have counterparts in § 816.102. Final paragraph (h) is former paragraph (e) which has been redesignated.

Table 1 contains a cross reference which shows the derivation of each section of the new final rules. This table also contains a column which shows where the change is explained.

TABLE 1.—CROSS REFERENCE, FORMER PROVISIONS VS NEW PROVISIONS, DISPOSAL OF EXCESS SPOIL ON PREEXISTING BENCHES

Former provision	New provision	Section where change is discussed
816.71(a)	816.74(a)	816.74(a)
816.71(a)(1)	816.102(f)	816.74(a)
816.71(a)(2)	816.102(c) and 816.74(c)	816.74(a) and 816.74(c)
816.71(a)(3)	816.74(g)	816.74(g)
816.71(b)(1)	816.74(c)	816.74(c)
816.71(d)	Deleted	816.74(c)
816.71(e)(1)	816.74(b)	816.74(b)
816.71(e)(2)	816.74(c)	816.74(c)
816.71(e)(3)	816.102(g) and 816.74(g)	816.74(a) and 816.74(g)
816.71(e)(4)	816.102(h) and 816.74(f)	816.74(a) and 816.74(f)
816.71(e)(5)	816.102(f)	816.74(a)
816.71(f)(1)	816.74(d)(4)	816.74(d)(4)
816.71(f)(2)	816.43	816.74(d)
816.71(f)(3)	816.74(d)	816.74(d)
816.71(g)	816.102(j) and 816.74(e)	816.74(a) and 816.74(e)
816.71(h)	Deleted	816.74(c)
816.71(i)	816.102(e)	816.74(a)
816.74(b)	816.74(c)	816.74(c)
816.74(c)	816.74(c)	816.74(c)
816.74(d)(1)	816.74(d)(1)	816.74(d)(1)
816.74(d)(2)	816.74(d)(2)	816.74(d)(2)
816.74(e)	816.74(h)	816.74(h)
816.102(a)(4)	816.74(d)(3)	816.74(d)(3)

1. Sections 816.74(a) and 817.74(a)

Final § 816.74(a) is being issued as proposed. In it, OSM has substituted references to the backfilling and grading rules in place of the references to the general requirements for the disposal of excess spoil.

Former § 816.74(a) authorized the regulatory authority to approve the disposal of excess spoil on preexisting benches "provided that all the standards set forth in § 816.71(a), (b)(1) [and] (d) through (j) . . . are met." The references to § 816.71 contain the general requirements for the disposal of excess spoil. The final rule substitutes references to § 816.102 (c), (e) through (h), and (j) for the § 816.71 references. Section 816.102 contains the backfilling and grading counterparts to the excess spoil disposal regulations of § 816.71. The substitution has the effect of conforming the requirements for disposal of excess spoil on a preexisting bench with the requirements for backfilling and grading spoil on an actively mined bench.

As proposed, OSM is adding a requirement to final § 816.74(a) that the affected portion of the preexisting bench be permitted. Because § 816.71 (a) requires that the disposal of excess spoil occur "within the permit area," and the substituted references to § 816.102 do not refer to the permit area, final § 816.74(a) has been written to explicitly require that "the affected portion of the preexisting bench is permitted." Thus, the final rule requires, as did the former rule, that the affected portion of the preexisting bench be permitted. This provision allows the affected area to be either within the permit area where the excess spoil was generated, or in a separately permitted area.

Section 816.102(c) requires compaction of material where advisable to ensure the stability of the spoil material and to prevent leaching of toxic materials. The section generally replaces the former requirement in § 816.71(a)(2). OSM is adding to a later paragraph (816.74(c)) the requirement in § 816.71(a)(2) that the spoil be placed in a controlled manner.

The reference to § 816.102(e) requires that the disposal of coal processing waste and underground development waste be in accordance with §§ 816.81 through 816.83, except that a long term static safety factor of 1.3 be achieved. This reference replaces the former reference to § 816.71(i) which provided similar requirements.

Section 816.102(f) protects surface and groundwater from the adverse effects of acid, toxic and combustible materials by requiring that exposed coal seams, acid

or toxic forming materials and combustible materials be covered. The new reference replaces the reference to §§ 816.71(a)(1) and 816.71(e)(5) which have similar requirements.

Section 816.102(g) allows cut and fill terraces to be constructed in the backfill if certain conditions are satisfied. This reference replaces the provisions of § 816.71(e)(3) which allowed cut and fill terraces on excess spoil disposal areas. Section 816.71(e)(3) contains a requirement that the outslope of the terrace be limited to a maximum slope of 2h:1v, a requirement not in § 816.102(g). As proposed, OSM is deleting this limitation from cut and fill terraces constructed on preexisting benches. The limit on the outslope, as proposed, will be the angle of repose as detailed in § 816.74(d)(2).

The reference to § 816.102(h) allows small depressions to be constructed on the fill material. Section 816.71(e)(4) provided a similar authorization. The one difference between the two provisions is that § 816.71(e)(4) prohibits the construction of permanent impoundments on excess spoil disposal areas. In the preamble to the proposed rule OSM explained:

although the rule would not explicitly prohibit permanent impoundments, § 816.74(a) does not reference § 816.102(i) which authorizes permanent impoundments in certain circumstances and the regulatory authority would not be authorized to allow permanent impoundments on preexisting benches. (53 FR 43975, October 31, 1988)

In response to a comment, which is addressed in the discussion of final § 816.74(f), OSM is adding a paragraph, final § 816.74(f), to the rule which prohibits permanent impoundments on preexisting benches.

The final rule references § 816.102(j), the backfilling and grading rule for controlling stabilization and erosion. This replaces the requirement in § 816.71(g) which addresses surface area stabilization, erosion and revegetation. The last sentence of § 816.71(g) which requires that "[a]ll disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction" does not have a counterpart in § 816.102 and has been added as proposed as final § 816.74(e).

2. Sections 816.74(b) and 817.74(b)

Section 816.74(b) is being issued as proposed except for one change. The proposed rule required the removal of "vegetation." The final rule has been changed to require the removal of "vegetation and organic materials." This returns the final rule to the former language in § 816.71(e)(1). The change

from the proposal results from a comment which noted that the Act at section 515(b)(22)(B) requires the removal of all "organic matter". OSM agrees that there is a distinction between the terms "organic matter" and "vegetation." The final rule, therefore, requires removal of all vegetation and organic material as required by the former rules and the statute.

Final § 816.74(b) requires the removal of all vegetation and organic material from the affected portion of the preexisting bench prior to the placement of the excess spoil; it cross-references the permanent program topsoil performance standards at 30 CFR 816.22; and it allows the use of topsoil substitutes in accordance with § 816.22(b) where insufficient topsoil is available on the preexisting bench.

Formerly, the cross reference to § 816.71(e)(1) provided for the removal of vegetative and organic materials prior to the placement of excess spoil, the removal, segregation, storage and redistribution of topsoil, and the use of organic material as mulch or as an additive to topsoil. These requirements are not in § 816.102, therefore, they have been added as final § 816.74(b).

3. Sections 816.74(c) and 817.74(c) (Proposed as §§ 816.74 (b) and (c) and 817.74 (b) and (c))

Final § 816.74(c) contains six provisions which state—

- The fill shall be designed and constructed using current, prudent engineering practices.
- The design shall be certified by a registered professional engineer.
- Spoil shall be placed only on the solid portion of the bench.
- Spoil shall be placed in a controlled manner and concurrently compacted as necessary.
- The spoil shall achieve a long term static safety factor of 1.3.
- Spoil deposited on any fill portion of a bench shall be treated as excess spoil under § 816.71.

a. *The fill shall be designed and constructed using current, prudent engineering practices.* Final § 816.74(c)'s first sentence tracks the language of § 816.74(c) with the phrase "and constructed" added. As proposed, the specialized inspection requirements in § 816.71(h) for excess spoil are being replaced by the normal inspection requirements for all permitted areas. OSM is also adding through the new rule a requirement that fills be constructed using current, prudent engineering practices. The additional language is included in response to a comment to the proposed rules which

expressed concern over the deletion of the inspections formerly required by § 816.74(a)'s reference to § 816.71(h).

The environmental hazards posed by disposing of excess spoil on the solid portion of existing level benches are no greater than the hazards posed by backfilling spoil on an active bench. A regulatory authority inspects backfilling of active benches under the requirements in 30 CFR 840.11. These inspections have proven to be an effective means of controlling against the hazards of backfilling on an active bench and of ensuring compliance with the performance standards and with the reclamation plan. OSM believes that these inspections will be an equally effective means of protecting against the hazards posed by disposing of excess spoil on preexisting benches. Therefore, the final rule replaces the inspections described in § 816.71(h) with the normal inspection process described in § 840.11. OSM continues to believe that the additional safeguards provided in § 816.71(h) are appropriate for those excess spoil disposal areas which pose significantly greater risk of environmental harm such as valley fills and head-of-hollow fills.

b. *The design shall be certified by a registered professional engineer.* The second provision of final § 816.74(c) provides for the certification of the design by a registered professional engineer. OSM did not include this requirement in its proposed rule. However, certification is required for all excess spoil disposal areas by section 515(b)(22)(H) of the Act as was pointed out by a commenter to the proposed rule. Certification was formerly required by cross reference to § 816.71(b)(1). In order to retain the statutory requirement while avoiding cross reference to the excess spoil rules, the sentence is being added to this paragraph.

The new rule uses the term "registered professional engineer" instead of the term "qualified registered professional engineer" which appears in § 816.71(b)(1). In 1983 when § 816.71 was published, the preamble explained that OSM had found some practicing registered professional engineers involved in design and certification of excess spoil fills who did not have sufficient experience to certify all phases of design and construction (48 FR 32913, July 19, 1983). OSM continues to believe that the risks posed by certain types of excess spoil disposal areas require specialized knowledge beyond the minimum standards posed by state certification boards. The particular specialized knowledge needed for excess spoil fills relates to the design of

the underdrain system to prevent water infiltration from springs or seeps into the fill and the design of rock toe buttress or keyway cuts to insure stability of the fill on a downslope. However, these risks do not exist when excess spoil is disposed on the solid level foundation required to invoke this rule. For this reason, this rule only provides that the design be certified by a registered professional engineer. OSM does not mean to suggest that the registered professional engineer does not have to be qualified. OSM intends merely that the qualifications necessary to design the disposal of excess spoil on a solid level pre-existing bench may not necessarily be the same as those required for the design and construction of structures covered by § 816.71(b).

c. *Spoil shall be placed only on the solid portion of the bench.* This requirement was proposed as § 816.74(c). It formerly appeared as § 816.74(b). Some concern was expressed by commenters that preexisting benches may contain areas composed of filled areas which may not have the stability of true rock floored benches. The rules being issued today only apply to disposal on solid preexisting benches. Although the requirement for foundation examinations in § 816.71(d) has been deleted as proposed, the professional engineer responsible for designing the fill and the regulatory authority approving the permit are still responsible for ensuring that disposal under these rules is limited to solid portions of the bench. In order to invoke the provisions of this section, the professional engineer's design must certify that the disposal area is a solid bench. Therefore, any foundation analysis necessary to establish the qualification of the proposed disposal site under this section must have already been performed and any additional foundation analysis would be redundant.

d. *Spoil shall be placed in a controlled manner and concurrently compacted as necessary.* The proposed rule did not require, as does the statute in section 515(b)(22)(A) and the former rules in § 816.71(e)(2) placement in a controlled manner and concurrent compaction as necessary. OSM has added these provisions in the final rules as required by the Act. The former rules provide for this requirement in § 816.71(e)(2). Additional discussion on spoil placement and compaction is given in response to a comment at 12.b of this rulemaking.

e. *The spoil shall achieve a long-term static safety factor of 1.3.* Excess spoil disposed on preexisting benches must

achieve a long-term static safety factor of 1.3. Obtaining a minimum long-term safety factor of 1.3 is a general requirement for all backfilling and grading as specified in § 816.102 and was a requirement for disposal of excess spoil on preexisting benches in prior § 816.74(c).

f. *Spoil deposited on any fill portion of a bench shall be treated as excess spoil under § 816.71.* The final sentence has been added in response to a comment to provide further guidance on situations in which there are both a solid bench and a fill area to be used to dispose of excess spoil. In such cases the solid portion of a preexisting bench is governed by § 816.74 while the fill portion is governed by § 816.71.

4. Sections 816.74(d) and 817.74(d) (Proposed as §§ 816.74(e) and 817.74(e))

Final § 816.74(d) (1) and (2) require that the preexisting bench be backfilled and graded to achieve the most moderate slope possible which does not exceed the angle of repose, and to eliminate the highwall to the maximum extent technically practical. These two paragraphs appear in the former rules and are being issued as proposed.

Final § 816.74(d)(3) requires, as proposed, that the preexisting bench be backfilled and graded to "[m]inimize erosion and water pollution both on and off the site." This paragraph picks up the backfilling and grading provision at § 816.102(a)(4), which is not otherwise referenced by the rule. This requirement protects the hydrologic balance.

Proposed § 816.74(d)(4) required that the preexisting bench be backfilled and graded to "[p]revent water infiltration into the backfill from springs, water courses, or seeps, and ensure stability." This corresponded with the requirements of § 816.71(f) which had been referenced by former § 816.74(a). Final § 816.74(d)(4) has been changed to quote the language from § 816.71(f)(1). The language of final § 816.71(d)(4) is closer to the statutory requirement of section 515(b)(22)(D) than the proposed language. The other two requirements formerly referenced by § 816.74, that is, § 816.71(f)(2) and § 816.71(f)(3), are expressly incorporated into the final rule through the provisions of § 816.74(d)(4). Section 816.71(f)(2) provides only a cross reference to § 816.43 which applies in all cases to permitted areas. Section 816.71(f)(3) provides design standards for underdrains when they are needed. The preamble to the final § 816.71(f)(3) clearly states that:

these specific requirements apply to all underdrain systems whether or not the disposal area falls within the definition of a

head-of-hollow or valley fill. (48 FR 32917, July 19, 1983)

(See the preceding discussion of § 816.74(a).) A comment relevant to issues addressed in this paragraph appears under section 12.d of this rulemaking.

5. Sections 816.74(e) and 817.74(e)
(Proposed as §§ 816.74(f) and 817.74(f))

Final § 816.74(e) is being issued as proposed with the exception that its section number has been changed as noted above. It requires that

[a]ll disturbed areas, including diversion channels that are not ripped or otherwise protected, shall be revegetated upon completion of construction.

This adds as an express provision to § 816.74 the last sentence of § 816.71(g), which was formerly referenced in § 816.74(a). (See preceding discussion of § 816.74(a).)

6. Former Sections 816.74(e) and 817.74(e)

Former § 816.74(e) is redesignated as final § 816.74(h). The proposed rule redesignated § 816.74(e) as § 816.74(g).

7. Sections 816.74(f) and 817.74(f)

Final § 816.74(f) prohibits the construction of permanent impoundments on preexisting benches backfilled with excess spoil. As stated in the preamble to the proposed rule and as mentioned earlier in the discussion of § 816.74(a), it is OSM's policy to prohibit the construction of permanent impoundments on preexisting benches backfilled with excess spoil. However, the proposed rule did not explicitly prohibit impoundments constructed on excess spoil as the former rules did. In response to the suggestion of a commenter, OSM is explicitly stating that policy by adding such a prohibition as § 816.74(f).

8. Sections 816.74(g) and 817.74(g)

Final § 816.74(g) requires that the [f]inal configuration of the backfill must be compatible with the natural drainage patterns and the surrounding area and support the approved postmining land use.

This section is issued in response to a comment received and comports with the requirements of section 515(b)(22)(G) of the Act. Similar requirements were specified at formerly referenced §§ 816.71(e) (2) and (3), and replicate others found at § 816.102(a)(5) but not cross-referenced. OSM agrees that the provision is needed for completeness and has included it with the final rules.

9. Sections 816.74(h) and 817.74(h)
(Proposed as § 816.74(g) and § 817.74(g))

Former § 816.74(e) is redesignated as final § 816.74(i).

10. Conforming Changes to Parts 780 and 784

After review of the proposed rules, OSM determined that additional conforming changes are required. OSM is making three changes to these permitting rules to accommodate the changes proposed and made to the performance standards at final § 816.74.

a. *Section 780.14(c)*. OSM is inserting "816.74(c)" into the list of cross referenced sections which are excepted from this rule allowing qualified registered professional engineers, professional land geologists or land surveyors to prepare and certify cross sections, maps and plans. Included among these exceptions is a reference to § 816.71(b) which, after today's rule, no longer applies to the disposal of excess spoil on preexisting benches. The effect of the insertion of § 816.74(c) into § 780.14(c) would be to continue the previous exception afforded by the reference to § 816.71(b). The insertion of § 816.74(c) would require that the cross sections, maps and plans prescribed by § 780.14(c) for the disposal of excess spoil on preexisting benches be certified by a registered professional engineer. This would make consistent the permitting and performance standards certification requirements for such disposal on preexisting benches.

b. *Section 780.35*. Section 780.35 governs the disposal of excess spoil. OSM is adding a phrase to the start of paragraph (b) which will read "[e]xcept for the disposal of excess spoil on preexisting benches." The change conforms the permitting requirements for disposal of excess spoil on preexisting benches at § 780.35 to the changes made to the performance standards for disposal of excess spoil on preexisting benches at § 816.74. The deletion from § 816.74 of the foundation analysis formerly required by its reference to § 780.71(d), as discussed earlier, obviates the need for a permit application to submit the results of a geotechnical investigation.

Preexisting bench areas used for the disposal of excess spoil are, of course, still subject to all the other permit application requirements that apply to surface coal mining operations including the requirement of § 780.35(a) to submit a description (with maps and drawings) of the disposal area. As discussed earlier, the use of § 816.74 to govern an excess spoil disposal site is limited to those areas which are established as

solid, rock floored benches by the design certified by the registered professional engineer.

c. *Section 784.23(c)*. OSM is inserting "817.84(c)" into the list of cross referenced sections which are excepted from this rule allowing qualified registered professional engineers, professional land geologists or land surveyors to prepare and certify sections, maps and plans. Included among these exceptions is a reference to § 817.71(b) which, after today's rule, no longer applies to the disposal of excess spoil on preexisting benches. The effect of the insertion of § 817.74(c) and § 784.23(c) would be to continue the previous exception afforded by the reference to 817.71(b). The insertion of § 717.74(c) would require that the cross sections, maps and plans prescribed by § 784.23(c) for the disposal of excess spoil on preexisting benches be certified by a registered professional engineer. This would make consistent the permitting and performance standards certification requirements for such disposal on preexisting benches.

11. Other Comments

A commenter, supportive of the proposed rule, noted that the proposed revisions remove a significant impediment to reclaiming previously mined areas. The commenter also recommended OSM not apply the rule in a manner that would discourage voluntary reclamation by industry through no-cost AML contracts with the State Regulatory Authorities (SRA).

The requirements in this final rule for the disposal of excess spoil material on preexisting benches are designed to parallel the backfilling and grading rules and to provide an incentive for industry to reclaim preexisting areas which otherwise may not be reclaimed through re-mining. OSM has no intention to apply this rulemaking in a manner that would discourage voluntary reclamation by industry. Any disposal of excess spoil from active mining operations must be performed in accordance with the requirements of this rule and any other applicable requirements of the regulatory program and the Act. The use of no-cost contracts under the Abandoned Mine Lands Program however is not germane to this rulemaking since projects supervised under that program are not subject to jurisdiction under title V.

Several commenters expressed concern about the placement of excess spoil on preexisting benches many preexisting benches are, in part, fill benches resulting from the pushing of material over the outslope. Since fill

benches often lack the stability to support further placement of spoil material, the commenters fear that excess spoil will be placed on the fill portion of the preexisting benches, not just on the rock bench, and will create the potential for mass movement.

Other commenters indicated they believed, in general, that the proposed rules adequately address foundation preparation and placement requirements. Nevertheless, these commenters also emphasized that care should be taken to insure that excess spoil material be placed only on the solid portion of the bench.

OSM recognizes that there are areas where there is material on the downslope from previous mining operations. There are also areas where material from previous operations remains on the bench. Therefore, OSM expressly states in final §§ 816.74(c) and 817.74(c) that this section of the rules only applies when excess spoil is placed on the solid portion of a bench and that § 816.17 applies when excess spoil is placed on a fill portion. OSM has included in the final rule a requirement that the design must be certified by a registered professional engineer. This is a requirement of the former rules but was not included in the proposed rule. OSM is retaining the professional engineer certification because of the need to establish that the foundation of the preexisting bench is a solid foundation.

A commenter stated that the proposed rule would encourage preexisting highwall reclamation without sacrificing environmental quality. However, the commenter recommended inclusion of the contemporaneous requirements of 30 CFR 816/817.100 as well as the time and distance limitations of proposed § 816.101.

OSM agrees the proposed language will encourage the reclamation of preexisting highwalls. While the general principles of contemporaneous reclamation in § 816.100 apply to all surface coal mining operations, the specific schedules in 816.101 for area and contour mines do not apply to disposal of excess spoil on preexisting benches.

Commenters also raised a related issue of seepage and its adverse affect on stability of the backfilled areas and, therefore, strongly recommended OSM create a separate provision for disposal of excess spoil on preexisting benches incorporating the ten (10) requirements described and discussed below.

a. *The disposal area must be permitted and bonded.* OSM agrees. Proposed and final § 816.74(a) require the disposal areas to be permitted.

Section 30 CFR 800.11(a) requires that all areas of the permit be covered by a bond prior to issuing the permit.

b. *The spoil must be transported and placed in a controlled manner, compacted concurrently and in such a way as to assure mass stability and to prevent mass movement, as required by section 515(b)(22) of the Act.* Section 515(b)(22)(A) specifies that

spoil [be] transported and placed * * * in position for concurrent compaction and in such a way as to assure mass stability * * *.

OSM agrees it is necessary to require spoil to be placed in a controlled manner and, if necessary for stability, compacted concurrently. The language of the Act does not, however, require concurrent compaction as the commenter alleges. Section 515(b)(22) specifies that

spoil [be] transported and placed * * * in position for concurrent compaction and in such a way as to assure mass stability. (emphasis added).

The emphasized language does not specifically require concurrent compaction. It only requires that the spoil be placed in position for concurrent compaction. The manifest concern of this statutory provision is that mass stability be assured. Final § 816.74(c) addresses that concern by providing that the spoil be placed in a controlled manner and compacted concurrently as necessary to attain the required stability. It may further be noted that the general requirements for disposal of excess spoil at § 816.71 have contained a similar provision since their promulgation in 1979. (44 FR 15311, March 13, 1979). Final § 816.74 (c) also provides that the fill shall be designed and constructed, using current, prudent engineering practices to attain a long-term static safety factor of 1.3 for all portions of the fill. Finally, the design must be certified by a registered professional engineer.

OSM also agrees that spoil must be transported and placed on preexisting benches "in such a way as to assure mass stability and to prevent mass movement." This means that under this section of the rules spoil may be placed only over rock floored portions of benches and not over fill areas which extend over the outslope. It also means that preexisting bench surfaces must be prepared prior to placement of the excess spoil. Preparation includes drainage of any existing impoundments and the removal of organic materials and vegetation. The regulatory authority has both the responsibility and the authority to require these actions under §§ 816 and 817.74 of the final rule and the §§ 816 and 817.102(c), (f) through (h),

and (j) requirements cross-referenced therein.

c. *All organic material must be removed prior to spoil placement as mandated by section 515(b)(22) of the Act.* OSM agrees. The requirement in §§ 816.74(b) and 817.74(b) of the final rule has been amended to add the term organic material to the term vegetation. Prior rules have used the terminology "vegetation and organic material" which is being retained in the final rule.

d. *The disposal area must not contain springs, wet weather seeps, natural water courses or their lateral water discharges (i.e., from auger or old underground mine workings) unless section 515(b)(22)(D) of the Act is complied with.* OSM agrees. The prevention of adverse effects from seepage on a backfill's stability is addressed in §§ 816.74(d)(4) and 817.74(d)(4) of the final rule. The final rule was changed from the proposed language to quote the requirement imposed by the former reference to § 816.71(f)(1). Therefore there is no change to this existing requirement under the new rule.

e. *The design of the spoil disposal area on the preexisting bench must be certified by a qualified registered professional engineer in conformance with professional standards, as mandated by section 515(b)(22)(H) of the Act, and not merely those fills using coal mine waste as proposed.* OSM agrees. Final 816.74(c) provides that backfills must have their design certified by a registered professional engineer. Certification is a statutory requirement in section 515(3)(22)(H) of the Act which, while not in the proposed rule, is included in the final.

f. *Standards for foundation and bench stability analyses for the proposed disposal area must be tailored to the nature of the proposed disposal areas.* OSM agrees that preexisting bench disposal areas may differ depending on age and the mining methods employed during the past mining operation and may require different preparation prior to placing the spoil in the backfill. OSM remains satisfied that the performance standard in § 816.74(c) for the use of prudent engineering practices during design and construction, coupled with a requirement to achieve a long term static factor of safety of 1.3 and limiting the rule to cover only disposal on the solid portion of the bench will provide the necessary regulatory controls to ensure stability. Nevertheless, the regulatory authorities may tailor additional program requirements to their individual needs. Further, nothing will prohibit the regulatory authority from

conditioning permits with more stringent criteria based on site specific conditions.

g. *There must be an explicit prohibition on the creation of permanent impoundments on preexisting benches.* OSM agrees. Accordingly, proposed §§ 816.74 and 817.74 were revised by adding a new paragraph (f). The final rule expressly prohibits permanent impoundments on the backfill areas of preexisting benches. For further information see II. D. 8., addressing §§ 816.74(f) and 817.74(f), of this final rulemaking.

h. *There must be a requirement that the final configuration of the backfill be compatible with the natural drainage pattern and surroundings and be suitable for its intended uses.* OSM agrees. Since a similar requirement does not exist in §§ 816.102 and 817.102, OSM has added this requirement as §§ 816.74(g) and 817.74(g) of the final rule. As discussed earlier (II. D. 9. addressing §§ 816.74(g) and 817.74(g) of this final rulemaking) paragraph (g) of §§ 816.74 and 817.74 requires the final configuration of the backfill be compatible with the natural drainage

patterns of the surrounding area and support the approved post mining land use.

i. *There must be compliance with all other requirements of section 515(b)(22) of the Act.* OSM agrees that compliance with the applicable requirements of section 515(b)(22) of the Act is necessary. Table 2 is a cross reference between the subsection of the Act and the former and new regulatory requirement.

TABLE 2.—CROSS REFERENCE THE ACT VERSUS FORMER AND NEW IMPLEMENTING RULES FOR EXCESS SPOIL DISPOSAL

The Act provision	Former rule	New rule
515(b)(22)(A).....	30 CFR 816.71 (a)(2), (e)(2).....	30 CFR 816.74(c) and 816.102(c)
515(b)(22)(B).....	816.71 (a), (e)(1).....	816.74 (a), (b)
515(b)(22)(C).....	816.71(f)(1).....	816.74(d)(4)
515(b)(22)(D).....	816.71(f)(1).....	816.74(d)(4)
515(b)(22)(E)*.....	Not applicable*.....	Not applicable*
515(b)(22)(F)*.....	Not applicable*.....	Not applicable*
515(b)(22)(G).....	816.71(e) (2) and (3).....	816.74(g)
515(b)(22)(H).....	816.71(b)(1).....	816.74(c)
515(b)(22)(I).....	816.71(a).....	816.74(a)

*The Act sections 515(b)(22) (E) and (F) apply to slopes, OSM rules for disposal of excess spoil on preexisting benches only apply to solid portions of existing level benches.

j. *There must be a requirement for inspection of the spoil disposal area prior to placement of spoil to ensure that factors which potentially could lead to the creation of an unstable fill are considered and properly treated.* OSM agrees that factors which could lead to the creation of an unstable fill must be considered prior to approving a permit for the site. Inspection of the spoil disposal area prior to placement of spoil to ensure that such factors are properly treated is a reasonable measure. Final § 816.74(c) requires that the fill shall be designed and constructed using current, prudent engineering practices * * * be certified by a registered professional engineer * * * and the spoil be placed * * * to attain a long term static safety factor of 1.3 for all portions of the fill.

These provisions ensure that the design and construction of spoil fills includes the proper treatment of factors which potentially could lead to the creation of an unstable fill.

E. Sections 816.81, 817.81 and 816.89, 817.89 Coal Mine Waste: General Requirements

1. Section 816.81(a)

OSM is amending § 816.81(a) in response to the district court decision concerning end or side dumping of coal mine waste in re Permanent II (Round III), 620 F. Supp. at 1534-38. As proposed, the final rule now requires

that coal mine waste be "hailed or conveyed" instead of the former language which only required coal mine waste to be "placed." The final rule adds two additional phrases to the proposed rule. Both changes have been made in response to comments and will be discussed more fully later. First, the phrase, "disposed of in an area other than the mine workings or excavations" has been added to the first sentence of § 816.81(a). Second, the phrase, "with final placement in a controlled manner" has been added to the second sentence of § 816.81(a).

OSM believes the final placement of coal mine waste by end or side dumping is inherently dangerous. As discussed in the preamble to the 1979 rule (44 FR 15209, March 13, 1983), the lack of control over compaction when material is end or side dumped may lead to instability and permeability. Instability or permeability may in turn lead to combustion, erosion, and oxidation of pyrite resulting in water quality degradation. As will be discussed later in greater detail, OSM will allow controlled gravity transport of coal waste when its final placement is accompanied by such additional steps as may be required to meet the performance standards of § 816.81.

OSM maintains, as it did in the preamble to the 1983 rule (48 FR 44011, September 26, 1983), that the controlled gravity transport of coal mine waste is

consistent with the Act. The legislative history of the Act does not indicate that the Congress intended OSM to regulate the transportation of coal mine waste to the disposal site.

The practice of transporting coal mine waste to a disposal area through methods other than direct hauling is well documented in the technical literature. (See, for example, Engineering and Design Manual—Coal Refuse Disposal Facilities, pp. 8.22-8.75, by E. D'Appolonia Consulting Engineers for the Mine Safety and Health Administration.) Accepted methods include conveyor belts and tramways, useful in mountainous terrain where haul road construction is difficult or where steep grades decrease the efficiency of individual hauling units. (See id. at p. 8.45; and Pit Slope Manual, "Chapter 9: Waste Embankments," p. 96, by the Canada Center for Mineral and Energy Technology.)

One commenter supported the language in § 816.81(a) of the proposed rule which requires that coal mine waste must be hauled and conveyed and placed in a controlled manner. The commenter stated that the possibility of spontaneous combustion from improper compaction, increased potential for saturation and (stability) failure, and the difficulty of effectively and evenly compacting end dumped material, described in the 1979 preamble, continue

to be valid reasons to reject end and side dumping of coal and to require controlled placement after hauling or conveying the waste.

On January 29, 1988, the D.C. Court of Appeals considered the threats of fill instability and spontaneous combustion. *NWF v. Hodel*, 839 F.2d 694, 731. The court upheld the 1983 revisions to 30 CFR 816.81 and 816.83 which eliminated the specific absolute design criteria prescribing compaction density, lift thickness and other "how to" rules on the basis of existing performance standards prescribing minimum satisfactory end results. The specific performance standards cited by the court as reasonably promoting fill stability and incombustibility were the requirements that the coal mine waste be placed in a controlled manner to prevent combustion and that the disposal facility be designed to obtain a minimum long-term static safety factor of 1.5. 30 CFR 816.81(a)(5) and (c)(2). These performance standards continue in the current regulations.

The provisions of final § 816.81(a)(1) that require coal mine waste to be "hailed or conveyed and placed for final placement in a controlled manner * * *" preclude end and side dumping as a means of final placement of coal waste. As will be subsequently discussed in response to other comments, additional steps following the transportation of coal waste to a storage facility would invariably be required to achieve the performance standards specified in § 816.81.

Four commenters objected to what they described as OSM's intention to regulate the transportation of coal waste by preventing the disposal of coal waste using end or side dumping. Those commenters asserted that Congress did not intend OSM to regulate the transport of coal waste and that the court did not ask OSM to prohibit end or side dumping, but only required OSM to explain why this practice is reasonable. One of these commenters also contended that OSM was reversing its position by preventing controlled gravity transport in the proposed rule. The commenter strongly recommended that OSM reevaluate the proposed rule and repropose it with adequate rationale in the preamble to support the rulemaking.

OSM believes that these commenters, in the main, have misunderstood the meaning of the terms "hailed or conveyed" as applied to this rule. "Hailed or conveyed" includes virtually all forms of transporting coal waste including trucks and systems such as conveyor belts and tramways. OSM is not prohibiting any form of transportation of coal waste but rather

is regulating its final placement. OSM rules have sought to protect against the problems associated with coal mine waste which occur in its placement rather than its transportation. OSM is not changing that policy.

One commenter who objected to the proposed change asked whether additional steps taken by the operators following end or side dumping would be acceptable to OSM. The commenter stated that it is unclear from the preamble of the proposed rule whether end or side dumping is prohibited as a method of placement prior to spreading (i.e., transportation) or only as a method of final placement. The commenter suggested that, if end or side dumping is prohibited as a method of final placement and not transportation, OSM insert the phrase "with final placement in a controlled manner" after the terms "hailed or conveyed". This commenter also submitted that the use of conveyor belts and tramways should be considered acceptable methods of controlled placement of coal waste under any final rule.

In response to the commenter's suggestion, the words: "for final placement" have been inserted between the word "placed" and "in a controlled manner" in the final rule. OSM has made the addition to emphasize that the regulatory controls of activities which place the coal mine waste for disposal are distinguished from the regulatory controls for activities which transport coal mine waste to a storage facility. OSM is unaware of any means of transporting coal mine waste to a storage facility which would achieve the performance standards required by § 816.81 for disposal without some additional steps being taken. These steps, however, may vary depending on the design of the disposal area, the individual site conditions, and the characteristics of the waste. However, the performance standards in § 816.81 cannot be achieved by gravity alone, as would be the case if end or side dumping were the means of final placement. Therefore, while there may be a variety of acceptable ways of transporting the coal mine waste to the disposal area, the final placement of the coal mine waste must be controlled so that the disposal achieves all the performance standards in § 816.81. Thus, final § 816.81 will read

[c]oal mine waste shall be hailed or conveyed and placed for final placement in a controlled manner to * * *.

One commenter stated that the rule does not apply to the material disposed in the mine workings or excavations as indicated in sections 515(b)(11) and

516(b)(4) of the Act. The commenter maintained that the rule applies only to the surface disposal of coal mine waste in areas other than the mine workings and excavations and recommended that appropriate rule language be added to this section to make that clear.

The commenter is correct. OSM does not intend for this rule to apply to material disposed in the mine workings or excavations. The language in proposed § 816.81(a) has been changed by adding the phrase "disposed of in areas other than the mine working or excavation." The new text is taken from the statutory limitation on the application of these rules contained in sections 515(b)(11) and 516(b)(4) of the Act.

2. Sections 816.89(d) and 817.89(d) EPA Regulations on Hazardous Waste

As proposed, OSM is deleting paragraph (d) from §§ 816.89 and 817.89. As stated in the Background section, these paragraphs were added to the regulations in 1983 and suspended in 1986 when the district court ruled that OSM had failed to follow the notice and comment provisions of the Administrative Procedures Act. The paragraphs required that any noncoal mine waste defined as "hazardous" under section 3001 of the Resource Conservation and Recovery Act (RCRA) must be handled in accordance with subtitle C and any implementing regulations of that Act.

OSM received two comments on the deletion. A commenter opposed the deletion on the basis that OSM was obligated to coordinate the implementation of the Act with other Federal laws, including RCRA, and must continue to require compliance by permit applicants with the applicable waste laws. Another commenter supported the deletion stating that the Act operates in concert with, but not in place of, other environmental laws and regulations.

Section 816.89(d) was originally issued at the request of EPA. In reassessing § 816.89(d) for the purpose of this rulemaking, OSM has decided to delete the paragraph for the following reasons. The incorporation by reference of certain RCRA provisions in § 816.89(d) would have required OSM and State regulatory authorities to assume permitting, inspection and enforcement responsibilities over those RCRA provisions which are assigned by Congress to EPA. Assuming those responsibilities is not required by the Act nor is it a task for which the Congress appropriates funds to OSM or the State regulatory authorities.

Enforcing RCRA provisions requires regulatory units structured and staffed appropriate to the task, a task significantly different from regulating the environmental impacts of coal mining *per se*.

An operator's duties under RCRA regarding disposal of hazardous noncoal waste will continue to be regulated by EPA. OSM, for its part, will continue, consistent with its jurisdiction under the Act, to coordinate its regulatory program with EPA to facilitate the implementation of RCRA regulations.

F. Section 816.100 Contemporaneous Reclamation

As proposed, the final sentence in § 816.100 has been deleted. This change conforms § 816.100 to the addition of § 816.101. The sentence being deleted authorized the regulatory authority to establish schedules for defining contemporaneous reclamation. This authorization is being replaced with the guidance contained in § 816.101.

G. Section 816.101 Backfilling and Grading: Time and Distance Requirements

On October 31, 1988, OSM proposed § 816.101 which contained four paragraphs. Section 816.101(a) contained time and distance schedules for contour and area mines as well as provisions for the regulatory authority to establish schedules for other mining methods. Section 816.101(b) allowed the regulatory authority to submit alternative schedules in lieu of those in section (a). Section 816.101(c) defined the parameters under which alternative schedules submitted under section (b) would be evaluated. Section 816.101(d) allowed the regulatory authority to extend the backfilling and grading time limit for a portion of the permit area if the permittee demonstrated through the permit application that additional time was necessary.

On April 17, 1990, OSM published a Notice of Inquiry in the *Federal Register* to provide an opportunity for public comment on whether additional regulations were needed to control the contemporaneous reclamation of multiple seam and mountaintop removal mining operations (55 FR 14319, April 17, 1990). OSM published the Notice of Inquiry because of comments received on this proposed rule and reports of problems in enforcing contemporaneous reclamation at multiple seam and mountaintop sites. A further discussion of this notice of inquiry appears in section G. 5., Notice of Inquiry on Multiple Seam Mining and Mountaintop Removal Operations, of this preamble.

The final rule contains two paragraphs. As proposed, final § 816.101(a) provides the time and distance schedules for area and contour mines and requires regulatory authorities to establish schedules for other mining methods permitted in their State. Final § 816.101(b) authorizes the regulatory authority to approve extensions to time for rough backfilling and grading for a permit area or a portion of a permit areas, similar to proposed § 816.101(d). OSM is withdrawing proposed § 816.101(b) which would have allowed a regulatory authority to submit schedules in lieu of those in § 816.101(a). Proposed § 816.101(c) detailing the criteria to evaluate alternative schedules has likewise been withdrawn. As will be discussed later, OSM believes the language of the final rule, which is very similar to the rule issued in 1979, provides sufficient guidance to States, while allowing sufficient flexibility to deal with any State- or site-specific problem.

1. Section 816.101(a) Time and Distance Schedules

Final § 816.101(a) contains time and distance schedules for contour and area mining and requires the regulatory authority to establish schedules for other methods of surface mining. For contour mining, § 816.101(a)(1) requires the completion of backfilling and grading within 60 days or 1,500 linear feet following coal removal. For area mining, § 816.101(a)(2) requires completion within 180 days following coal removal, and not more than four spoil ridges behind the pit being worked, the spoil from the active pit constituting the first ridge. Sections 816.101(a) (1) and (2) are identical to the proposed rule. Under § 816.101(a)(3), backfilling and grading schedules for other mining methods shall be established by the regulatory authority. Any schedule established by the regulatory authority must incorporate an inspectable standard between coal removal and the completion of backfilling and grading.

One commenter wanted OSM to clarify that an operation completing the "rough" backfilling and grading stage, but not the final grading stage, would be considered to be in compliance with the time and distance requirements. The commenter also mentioned that final grading must at times be combined with topsoil placement and seeding in order to minimize erosion. Because the 1979 Federal rules recognized this distinction (44 FR 15411, March 13, 1979), the commenter requested OSM clarify the issue in this final rule.

OSM intends backfilling and grading to mean that all of the spoil material has been placed in the mined-out area and the backfilled material is ready for final grading as specified in § 816.102(j). Thus, backfilling and grading does not include final grading, placing topsoil, and seeding. The 1979 preamble and rules used the phrase "rough backfilling and grading" but did not explain the meaning of the term "rough". Since it was not explained in 1979, OSM chose not to include this wording in the proposed rule. In response to the commenter's request for clarification, OSM has adopted language similar to the 1979 rules; therefore, final § 816.101 reads " * * * rough backfilling and grading for surface mining * * *."

A commenter stated that time standards should be eliminated since the distance limitations were felt to be sufficient to ensure contemporaneous reclamation. The commenter believes that the elimination of time standards would eliminate difficulties in inspection related to tracking the number of days between coal removal and backfilling and grading.

OSM disagrees with the comment. The establishment of distance limits without concomitant time limits would not sufficiently ensure that contemporaneous reclamation would occur. For instance, an operator could cease coal extraction prior to proceeding four spoil ridges or 1,500 linear feet. In circumstances such as these, where a distance limit would not apply, a time limit would ensure that reclamation would proceed properly. Alleged enforcement difficulties do not constitute sufficient reason for OSM to retreat from this important performance standard. Moreover, required monthly inspections make it unlikely that the time limits will be abused to any great degree.

The commenter also stated that the term "coal removal" also needs to be defined, so that whatever time standard is applied, it is applied at a clearly defined point. The commenter stated that it is not clear if the time period starts when coal is removed from a point or if it starts when coal removal is completed for a cut or pit.

In a similar vein, several commenters asked OSM to clarify the phrase "following coal removal" for area mining so as to assure that reclamation follows disturbance of the land surface in a timely manner. Citing *Save Our Cumberland Mountains, Inc. (Rith Energy)*, 108 IBLA 70 (1989), these commenters objected to OSM's explanation in that case that the 180-day deadline for backfilling and grading did

not start until after all minable coal was removed from the mine cut. The commenters claimed the OSM's interpretation of "following coal removal" to mean following final removal of all coal from a pit, rather than from any point in the cut or pit, is in contradiction with the Secretary's 1979 interpretation and Congressional intent. Therefore, the commenters contended that reclamation of an area must follow within 180 days of the disturbance of land and coal removal at any point of land within the mine cut, rather than following removal of all coal within the mine cut or pit. On the other hand, another commenter suggested applying the 180 day limit only after final coal removal to ensure that the last pit or cut is reclaimed in a timely fashion.

The time and distance schedules for area and contour mining begin following the completion of coal removal. The phrase "following coal removal" means that no minable coal is left in a particular area of the mine. In the *Rith Energy* case, referred to by the commenter, the board held that backfilling and grading attaches to an area of land at the time of coal removal, and not at the time of final coal removal from a mining cut. *Id.* 108 IBLA at 80. Therefore, the key to enforcing time and distance schedules is to focus on the area of land rather than coal removal. Practical application of this concept requires that time and distance schedules be calculated from a moving "point", i.e., a small area, of a coal seam from which coal is being removed. In the case of multiple seam mining, the moving "point" would be established as coal is extracted from the lowest coal seam.

A commenter claimed that there is no justification given for the numerical time standards in §§ 816.101(a)(1) and (a)(2) (60 and 180 days, respectively, for contour and area mining). The commenter noted that contemporaneous reclamation is so dependent upon site-specific conditions (e.g., type of mining, equipment, geology, climate, speed of mining), that it cannot be tied to such specific time constraints as OSM proposed. Therefore, the commenter wanted OSM to outline steps for determining contemporaneous reclamation for each operation on a site-by-site basis. In the commenter's view the permit is the place to specify time standards because site and operating conditions are too variable for generic Federal or State rules to be appropriate.

Similarly, another commenter objected to the reimposition of nationwide time and distance

requirements for completion of backfilling and grading operations at surface coal mining operations. The commenter stated that OSM deleted identical 1979 regulations in 1983 on the premise that the variety of local conditions in mining States precluded the imposition of national standards, and because the Act does not mandate uniform, nationwide time and distance requirements. The commenter pointed out that the legislative history of the Act fails to mention the necessity for nationwide time and distance requirements to define contemporaneous reclamation. The commenter asserted that it is apparent from the 1988 appeals court decision in *NWF v. Hodel*, 839 F.2d 694, (D.C. Cir. 1988) that the Act does not require a national time and distance standard. Therefore, OSM was asked to remove what the commenter described as the arbitrary reference to the nationwide standards, which bear no resemblance to on-the-ground conditions or to OSM's prior position.

The same commenter argued that OSM failed to provide adequate justification in the proposed rule for the reversal in agency position. The commenter insisted that OSM's reliance upon the States' requests for guidance on time and distance schedules and various State programs' adoption of the 1979, or more stringent standards, does not constitute sufficient justification for the rule change. The commenter claimed OSM's reliance upon such State action was flawed because (1) the States had to adopt the 1979 rules to keep their programs consistent with the rules of the Secretary and (2) the States have not wanted to change their rules while the issue remained in the courts and unsettled.

The commenter recommended OSM adopt rules which would allow States to set their own requirements for contemporaneous reclamation based on local conditions and would contain flexible standards to accommodate the distinct circumstances of individual surface coal mining operations.

In establishing a regulatory framework for implementing the Congressional prescriptions for contemporaneous reclamation at section 515(b)(16) OSM has, in the past, adopted two alternatives. In 1979, the regulations provided a nationwide limit on time and distance for contour and area mines and allowed for time limit extensions for specific permit areas in accordance with § 780.18(b)(3). In 1983, OSM removed the time and distance limitations from the national program and provided regulatory authorities with the

responsibility for determining schedules for their individual States. The legal challenge to this second alternative resulted in the district court's remand of the regulations for failure to provide States with sufficient guidance in defining contemporaneous reclamation beyond that which was provided in the Act. In *Re Permanent Surface Mining Regulation Litigation* (II), No. 79-1144 (D.D.C. Oct. 1, 1984).

In affirming the remand with regard to contemporaneous reclamation, the circuit court held that, while the Act does not automatically and inevitably require the Secretary to "flesh out" the contemporaneous reclamation prescriptions of section 515(b)(3) and (b)(16), he did not adequately explain why guidance beyond the statutory requirements sensibly could not be given to local regulators. *NWF v. Hodel*, 839 F.2d 694, (D.C. Cir. 1988).

This final rule has a sufficient basis and purpose to be valid. The commenter who asserted that the Secretary failed to justify his reversal from his 1983 rules misconstrues the posture of the issue. The position taken in the 1979 rules on time and distance limits is the only one to which the current rule may properly be weighed against. The Secretary is not now required to justify a reversal from a 1983 policy which the court invalidated. OSM has always intended that there will be an inspectable contemporaneous reclamation standard which will apply to every mining site. In final § 816.101(a) OSM has reestablished national standards for area and contour mines (§ 816.101(a) (1) and (2)) and required the States to set State standards for other types of mining (§ 816.101(a)(3)).

Final § 816.101 is modeled on the 1979 rules. The time and distance schedules for contour and area mining in final § 816.101(a) are identical to those in the 1979 rule. The preamble to that rule (44 FR 15226, March 13, 1979), explained how these schedules were developed. Among other things, OSM stated that "(i)t is necessary to establish a maximum time limit for backfilling and grading to ensure that toxic-forming material in the spoil will not remain exposed to surface runoff over an indefinite period of time. 44 FR 15226 (1979). In light of the substantial additional experience gained with these rules at the State and Federal level since 1983, OSM has reconsidered their utility for providing workable national time and distance standards for which reasonable accommodations can be made for local differences. In this light, OSM has affirmed its earlier conclusions and modeled final § 816.101(a)(1) and (2) after the 1979 rules.

Despite the commenter's assertions of the States' motivation for retaining the 1979 schedules, States, when given the option of removing them from their rules in 1983, did not do so. OSM believes the State rules were not changed because the 1979 provisions are viable and workable for a great majority of contour and area mines. These provisions and schedules simplify mine planning, bonding and inspecting and provide a uniform playing field across State lines for operations which are substantially similar in scope. Permit applicants have found retention of State program provisions governing time and distance schedules as an aid to complying with the permit information requirements of § 780.18. Many permits cite the program time and distance schedule as a means of demonstrating their adherence to backfilling and grading reclamation timetable requirements. In short, where appropriate, nationwide standards have substantial administrative benefits for all concerned.

To the degree that flexibility is required, the final rule in § 816.101(b) provides for such flexibility based upon specific showings by a permittee. This allows for site-specific conditions to be taken into account. For types of mining other than area and contour operations, the State is required to establish State standards in accordance with § 816.101(a)(3). OSM has not defined national standards for mining operations other than area and contour mines. Limits for the remaining types of mining operations, if and where they are conducted, are to be determined on a state-by-state basis. OSM believes that contemporaneous reclamation standards for these operations are best defined by the State regulatory authority.

One commenter complained that, although area mining can be conducted either as a truck and shovel or as a dragline operation, the standard for contemporaneous reclamation of area mines in § 816.101(a)(2) is suitable only for dragline operations. The commenter did not explain the basis for this opinion. OSM disagrees with this comment. In the case of area mining that uses truck and shovel operations, the four spoil ridge criteria would not apply but the time schedule would be appropriate to ensure contemporaneous reclamation.

On a similar tack, another commenter claimed the time and distance requirements for area mining are not adequate in all cases. This commenter wanted the rules to clarify that the 180-day period would not include periods when the operation is temporarily shut down through circumstances beyond the

control of the operator (e.g., as a result of labor disputes, weather, etc.).

The provisions of 30 CFR 816.131 on temporary cessation are to be used for temporary shutdown. Anytime an operation is in temporary cessation for 30 days or more because of circumstances such as adverse weather or labor problems or similar reasons the person conducting the surface mining activity is required to notify the regulatory authority. Since the 30 day provision of § 816.131 is within either the 60 or 180 day provisions of § 816.101, there should be no conflict with this provision and the contemporaneous reclamation time limits.

Another commenter questioned the use of "or" instead of "and" in § 816.101(a)(1). The commenter wondered if OSM really intended the time and distance requirements for backfilling and grading in contour mines to be alternatives (i.e., within 60 days or 1500 linear feet). Instead, the commenter suggested that "and" would be more suitable since its use would parallel its use in § 816.101(a)(2) for area mines where backfilling and grading are to be completed with both a specified time and a specified distance.

There is no reason to change the conjunction of § 816.101(a)(1) from "or" to "and". OSM believes that the meaning of this provision is clear that backfilling and grading must be completed within either 60 days or 1500 linear feet following coal removal, whichever comes first.

To have interpreted § 816.101(a)(1) otherwise would have opened its provisions to grave abuse. As previously noted, an operation could have ceased mining short of 1500 linear feet and never have been required to backfill and grade the disturbed area. Such a scenario would conflict with the intent of the Act to compel reclamation as "contemporaneously as practicable" (section 515(b)(16)), "and * * * as possible." (Sec. 102(e)).

2. Section 816.101(a)(3) Schedules for Other Mining Methods

Final § 816.101(a)(3) requires the regulatory authority to establish backfilling and grading schedules for other surface mining methods. This section requires a schedule if mining other than contour or area mining is being conducted within the State. Section 816.101(a)(3) has been revised from the proposed rule to clarify that schedules for mining methods other than contour or area mines also apply where OSM is the regulatory authority.

OSM interprets these provisions as requiring the regulatory authority

establish schedules that are inspectable standards.

Because of the diversity which exists in types of operations and areas where such operations are conducted, it is infeasible to suggest that OSM establish national schedules for all methods of operations. The conditions placed on the regulatory authority are—if the regulatory authority is going to approve permits for mining method other than contour and area mining—then the regulatory program must contain an inspectable contemporaneous reclamation standard for the type of mining proposed.

At a public meeting, a commenter asked OSM to state in the preamble to the final rule that schedules for other mining methods are required, and not merely authorized, under proposed § 816.101(a)(3). OSM acknowledges that the preamble to the proposed rule was not clear as to whether the development of schedules was required or merely authorized. However, the rule language, both proposed and final, is clear that regulatory authorities shall provide schedules for mining methods other than area and contour mining. OSM believes that final § 816.101(a)(3) is clear that such schedules are required and not merely authorized.

A commenter asked what OSM will do in Tennessee (a Federal program State) as a result of proposed § 816.101(a)(3) which provides for the establishment through the State program approval process of schedules for operations which are neither contour nor area operations. OSM agrees that the proposed rule language did not make it clear how, or whether, mining operations requiring schedules established by the regulatory authority are to be treated when OSM is the regulatory authority. Consequently, § 816.101(a)(3) was revised to remove the word "state" from the phrase "state regulatory authority". OSM will establish the schedules for operations on Federal or Indian lands or a Federal Program State where OSM is the regulatory authority. For example, 30 CFR 942.816(e) contains the time and distance schedules for the State of Tennessee.

3. Extensions of Time Final § 816.101(b) (Proposed as § 816.101(d))

Final § 816.101(b), authorizes the regulatory authority to extend the time allowed for backfilling and grading for the entire permit area or for a specified portion of the permit area if the permittee demonstrates, in accordance with 30 CFR 780.18(b)(3), that additional time is necessary. OSM recognizes that

not all mining operations can meet a time or distance limit set on either a national or State basis. However, the extension must be requested by the permit applicant, who must demonstrate its necessity in the permit application and it must be approved by the regulatory authority as a part of the permit process.

The 1979 rules at § 816.101(a)(1) and (3) for contour and area strip mining, respectively, made similar provision for granting additional time (44 FR 15411, March 13, 1979). The preamble to those rules indicated the regulatory authority may allow additional time for rough backfilling and grading if, for example, the permittee demonstrates that the time limit established under § 816.101(a) is too restrictive because of local conditions (44 FR 15226, March 13, 1979).

One commenter stated that the flexibility provided in proposed § 816.101(d) (Final § 816.101(b)) was needed to handle unexpected delays due to unique site specific conditions such as weather, equipment, and to protect the safety of the miners. However, the commenter also insisted that the regulations in proposed § 816.101(d) should allow the regulatory authority to grant extensions for the entire permit area, and not limit such extensions to specific portions of the permit area. Also, another commenter wanted OSM to include special provisions for seasonal operations that backfill the previous mining area during the next operating period which may be 9 months later. The commenter stated that no backfill is available until the next pit is started and that the economics of coal extraction would be destroyed by having to backfill the existing pit before the start of the next pit.

OSM adopted the suggestion to modify final § 816.101(b) to allow the regulatory authority to grant time extensions for the entire permit area instead of limiting that authority to a specified portion of the permit area. Final § 816.101(b) is to be used by the regulatory authority to grant an extension because the operator cannot meet either the national standard for area or contour mines or the State standard for other types of mines because of the site-specific conditions of the permit area. In addition, these extensions are granted through the permit process in accordance with § 780.18(b)(3). To reiterate an earlier point, extensions of time are not granted to accommodate temporary shut downs resulting from adverse weather, market condition, labor problems or similar reasons. These conditions are governed

under the temporary cessation provisions of 30 CFR 816.131.

A commenter suggested adding a new subsection which would allow for a specific backfilling and grading schedule as part of a postmining land use change. The commenter wanted the regulatory authority to have the flexibility to approve schedules for specific land uses on a case-by-case basis. The commenter maintained that postmining land uses such as industrial land for utility ash disposal require detailed schedules for backfilling and grading which are outside of the norm.

Another commenter recommended extending the time and distance requirements where noncoal mining operations occur within the same pit area. The commenter cited an example where sand and clay are extracted above a seam of coal (lignite) by a different company than the one mining the lignite. Additional flexibility is required, the commenter stated, where more than one operation has valid rights in the same pit area.

OSM believes these comments illustrate why flexibility in the time and distance requirements for backfilling and grading the permit area is needed. The time and distance requirements for a permit area as those described above may be extended under final § 816.101(b) for either an entire permit area or for a portion of a permit area, whichever is appropriate, depending on specific circumstances.

4. Withdrawal of Proposed §§ 816.101(b) and 816.101(c)

OSM has withdrawn proposed §§ 816.101(b) and 816.101(c) in the final rule. Proposed § 816.101(b) would have allowed a regulatory authority to establish, subject to the State program approval process, alternative backfilling and grading schedules in lieu of those prescribed in § 816.101(a). Proposed § 816.101(c) would have allowed regulatory authorities to incorporate one of two standards governing the completion of backfilling and grading in any schedule it established. The two standards were either a time interval or distance function.

As indicated in the preamble to the proposed rule, OSM considered providing this option in response to comments received during outreach briefings in which States, in their comments regarding backfilling and grading guidelines, asked to retain discretion in determining alternative schedules. These proposed provisions would have given State regulatory authorities the flexibility to adopt backfilling and grading schedules which meet State-specific conditions, but

would not have established a standard for OSM to measure the sufficiency of the alternate schedules.

These proposals are withdrawn in favor of the final rules promulgated today. OSM believes the final rule's context of national schedules for area and contour mines, State schedules for other types of mining, and permit-based exemptions, when required, for special circumstances accomplishes the goal of ensuring contemporaneous reclamation while, at the same time, providing sufficient flexibility to adapt to special circumstances. After a careful analysis of the comments to the proposed rule, OSM has concluded that all potential problems with time and distance schedules could be accommodated under the final rule's structure and the additional flexibility provided in the proposed rule was unnecessary.

5. Notice of Inquiry on Multiple Seam Mining and Mountaintop Removal Operations

On April 17, 1990, OSM published a Notice of Inquiry (NOI) in the Federal Register to provide an opportunity for public comment on whether additional regulations were needed to control the contemporaneous reclamation of multiple seam and mountaintop removal mining operations (55 FR 14319, April 17, 1990). OSM published the Notice of Inquiry because of comments received on this proposed rule and reports of problems in enforcing contemporaneous reclamation at multiple seam and mountaintop sites. According to the Notice, OSM was receiving reports from field inspectors about mine sites which appeared not to be contemporaneously reclaimed. In response to those complaints, OSM solicited public comments on whether to add information requirements to the permitting rules which would require specific data on the methods of mining and schedule for completion.

Promulgation of time and distance schedules in this rule is not intended to resolve the concerns raised in the NOI concerning contemporaneous reclamation at multiple-seam operations. The issues identified in the NOI were primarily associated with enforcing contemporaneous reclamation requirements prior to the commencement of the removal of coal from the lowest permitted seam. This rule does sufficiently address, however, what it was intended to cover: Contemporaneous reclamation of sites were coal removal from the lowest permitted seam has begun. Solutions to the issue raised in the April 1991 NOI are thus beyond the scope of the

October 31, 1988 proposal, and need not be part of the basis and purpose of this rule.

Having examined the issues raised in the NOI in light of the comments received on the NOI, OSM has concluded that other existing OSM rules are sufficient to address the issues raised in the NOI. Therefore, OSM has decided not to initiate further rulemaking at this time. The sufficiency of other existing rules is explained in the following discussion. The discussion covers OSM permitting, enforcement, and oversight rules.

How Existing Regulations Ensure Contemporaneous Reclamation.—a. Permitting. The permitting regulations in 30 CFR 780.18(b)(1) require a detailed timetable for the completion of each major step in the reclamation plan. Paragraph 780.18(b)(3) requires a plan for backfilling, soil stabilization, compacting and grading that shows the final surface contours of the proposed permit area. In the Notice of Inquiry, OSM considered amending the permitting information regulations to require more detailed information on the mining methods and backfilling and grading sequence and schedule. Three States commenting to the Notice of Inquiry believed that OSM has adequate regulations in place to ensure contemporaneous reclamation of multiple seam and mountaintop removal operations. One commented that further rulemaking is unnecessary and not likely to accomplish the intended goal.

One commenter to the Notice of Inquiry expressed the opinion that a review of the current regulations shows that OSM has already promulgated a very comprehensive set of requirements for the permitting of surface coal mining operations to assure contemporaneous reclamation. The commenter further stated that the provision of § 780.18(b)(3) empowers State regulatory authorities to require that the operator fully remove all seams of coal and accomplish reclamation in a timely manner, in accordance with the timetable required in each permit.

OSM agrees with the commenter. In addition to § 780.18, under which operators have to submit a reclamation plan for approval, 30 CFR 780.12 and 780.14 require the submittal of operation plans and maps describing the projected progress and sequence of the permitted operation. See, e.g., § 780.14(b)(2). Plans submitted and approved under all of these sections become part of the approved permit and are enforceable by the regulatory authority. Thus regulatory authorities are empowered to assure that mining operations proceed in a

timely manner and that reclamation be performed contemporaneously.

To the extent that the lack of time and distance requirements may have contributed to problems, under the final rule States are required to have time and distance schedules for all types of mining being permitted within their State. Area and contour mines have national time and distance schedules (§ 816.101(a)(1)&(2)) and other types of mines must have State schedules (§ 816.101(a)(3)).

b. Enforcement. OSM regulations at § 840.11(b) require four complete and 12 partial inspections of all mine sites yearly. Inspectors visiting a mine monthly can readily ascertain whether mining and reclamation is progressing contemporaneously, and whether an operator is following the approved operation and reclamation plans. Thus enforcement of the permit conditions that an operator must follow should assure that reclamation will occur in a timely manner.

c. Oversight. In accordance with § 842.11(a)(1), OSM has the authority to conduct inspections of surface coal mining and reclamation operations to monitor and evaluate the administration of the approved State programs.

A commenter to the Notice of Inquiry addressed the issue of additional oversight. Since the commenter believed that the issue of timely reclamation was confined to one State, they recommended that a better course of action appears to be oversight where the problem is allegedly occurring. The commenter can be assured that if additional oversight efforts are indicated by OSM's evaluation of a State's implementation of its program, these efforts will be undertaken.

d. Multiple seam mining. As stated earlier, the final rules provide for the application of time and distance schedules to contour and area mines with more than one seam. States may elect to have a separate schedule for multiple seam mines, which are also area or contour mines, if the State schedule adheres to the limits in § 816.101(a)(1) or (2) for those mines.

Two commenters stated that the proposed regulations failed to address multiple-seam mining. For a variety of reasons the commenters asked that the final rules include explicit standards for applying time and distance limitations to multiple-seam operations in both contour mining and mountaintop removal operations.

The same commenters contended OSM must provide, as required by the district court in its remand of the regulations governing contemporaneous

reclamation, justification for its failure to establish minimum national backfilling and grading standards for multiple seam mining whether in area and contour mines or mountaintop removal operations. The commenters claimed the States, in the absence of Federal standards, will establish the weakest standards possible in order to assist their local industry.

A commenter to the Notice of Inquiry stated that when the proposed rule on time and distance schedules is adopted it will establish standards applicable to all types of mining operations, including multiple seam and mountaintop removal. The commenter continued by making the observation that many of the multiple seam coal mining operations occur within contour or area operations for which specific time and distance requirements are already in place.

As stated earlier, the time and distance schedules for contour and area mines apply whether the mine is a single or multiple seam situations. When these schedules are applied to mines with more than one seam, the time or distance standard will start with the removal of coal within the last seam. Also, if a permit applicant believes that the national schedules for contour and area mines which apply to a particular multiple seam operation are unworkable they have the ability to request a site-specific extension to the time limit under § 816.101(b).

Commenters to the proposed rules, pointed out a situation where a lower seam is permitted without any intention of mining the seam. The commenters asserted that after mining the next to last seam, the operator applies for inactive status and leaves the mountain with no reclamation.

With regard to the above comment, the time and distance limits apply when the requirement to reclaim begins. Until coal removal occurs at an area, the particular limits in § 816.101(a) do not apply. However, OSM has rules which govern not only contemporaneous reclamation but also temporary and permanent cessation and bonding all of which may apply to the type of situation described. Operators are required to follow their approved plans of operation. If they do not, the regulatory authority can step in to ensure that the rules are complied with and the violations based upon misrepresentations in such plans are corrected.

e. Mountaintop removal operations. Commenters to the proposed rule stated that OSM must provide justification for its failure to establish minimum national backfilling and grading standards for

mountaintop removal operations as required by the district court in its remand or to explain its failure to do so as required by the circuit court.

OSM disagrees with the characterization of the October 1984 district court opinion and the 1988 Circuit court opinion. In their discussion of contemporaneous reclamation, both courts focused on the removal of time and distance limits of area and contour mines. Neither discussion requires the establishment of such standards for mountaintop removal where such standards did not exist previously.

The commenters also maintained that the States would establish the weakest standard possible to help their industry in the absence of Federal standards. They stated that OSM must provide some national minimum standard for mountaintop removal operations so that the Congressional mandate of contemporaneous reclamation is met. In a meeting with OSM, these same commenters claimed that the rules should require State regulatory authorities to establish mountaintop removal requirements which specifically contain standards for contemporaneous reclamation.

The above commenters also acknowledged the difficulty of establishing time or distance limitations for mountaintop removal operations. They said that backfilling and grading operations and the resulting time and distance limitations for these operations will vary depending on whether multiple seams are involved and whether the spoil is being stored on the mountain, or placed entirely in fills. In either case, they concluded, the area would be graded or the surface prepared for revegetation.

Mountaintop removal operations are outside the scope of this rulemaking. However, in response to comments it is noted that the regulatory controls for mountaintop removal operations are based on the premise that the exemption from AOC is the result of an approved, specific post mining land use. The key to timely reclamation therefore is linking the mining and reclamation with the attainment of the post mining land use.

Post mining land use is, of course, evaluated on a site-by-site basis. Land use is determined by the needs of the local area as well as the compatibility of the use with the surrounding environment. Since the mountaintop removal exemption is based on the approved post mining land use and the reclamation is tied to that approval, the reclamation would be coordinated with the development of that land use.

The decision on how to achieve contemporaneous reclamation and how

to inspect the permitted site to ensure adherence to timely reclamation is provided for in the 1987 amendment to the permitting requirements for mountaintop removal operations (52 FR 39182, October 21, 1987).

§ 785.14(c)(1)(iii)(F) requires the applicant for a mountaintop removal permit to attach a schedule to the reclamation plan as to integrate the mining operation and the reclamation with the post mining land use. To approve a permit for mountaintop removal operations a regulatory authority must evaluate that schedule against the general prescriptions covering contemporaneous reclamation in § 816.100. Following the approval of the permit, the schedule forms the inspectable basis to ensure the operation is being contemporaneously reclaimed.

In summary, mountaintop removal operations are subject to the contemporaneous reclamation standards in § 816.100. That performance standard is achieved through a site-by-site analysis of the requirements for attaining the post mining land use which formed the basis for the exemption from AOC in the permit. Each permit for mountaintop removal operations must contain a schedule, attached to the reclamation plan, which integrates the mining operation and the reclamation with achieving the post mining land use. Mine sites will be inspected against that schedule to ensure that the site is being contemporaneously reclaimed.

H. Thin or Thick Overburden

The final rules for §§ 816.104 and 816.105 remain unchanged from the rules proposed. OSM has reorganized former §§ 816.104 and 816.105 so that paragraph (a) of these sections defines thin overburden and thick overburden, respectively, and paragraph (b) contains the corresponding backfilling and grading performance standards. For convenience, the definitions of thin overburden and thick overburden in §§ 816.104(a) and 816.105(a), respectively, are discussed concurrently under the following subheading. The backfilling and grading performance standards for thin and thick overburden in § 816.104(b) and § 816.105(b), respectively, are then discussed under consecutive separate subheadings.

1. Section 816.104(a)—Definition of Thin Overburden; Section 816.105(a)—Definition of Thick Overburden

In preparing the proposed rule on §§ 816.104(a) and 816.105(a) OSM considered moving the definitions of thin overburden and thick overburden to the definition section in 30 CFR 701.5.

However, because of their limited application, OSM decided to not do so. However, the term "spoil", which is used in both definitions, continues to be defined at § 701.5.

Thin overburden is defined in final § 816.104(a) as the condition where there is

insufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. Insufficient spoil and other waste materials occur where the overburden thickness times the swell factor, plus the thickness of other available waste materials, is less than the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not: (1) [c]losely resemble the surface configuration of the land prior to mining; or (2) [b]lend into and complement the drainage pattern of the surrounding terrain.

Final § 816.105(a) defines thick overburden as

more than sufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. More than sufficient spoil and other waste materials occur where the overburden thickness times the swell factor less the settlement exceeds the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not: (1) [c]losely resemble the surface configuration of the land prior to mining; or (2) [b]lend into and complement the drainage pattern of the surrounding terrain.

Both definitions contain three standards incorporating the requirements of sections 515(b)(3) and 701(2) of the Act. The first is whether there is sufficient overburden and, in the case of thin overburden, other waste materials, to restore the approximate original contour. The second standard is whether the resulting surface configuration closely resembles the land prior to mining. The third is whether the drainage pattern of the reclaimed area complements the surrounding terrain. OSM has adopted these standards for the reasons discussed below.

The exemptions in section 515(b)(3) of the Act are based on whether there is sufficient overburden to restore the land to AOC. Thin overburden means there is too little material to restore AOC; thick overburden means there is too much. Thus, whether a permit area qualifies for a thick or thin overburden exemption fundamentally depends on the definition of AOC.

Section 701(2) of the Act and the corresponding regulation at 30 CFR 701.5 define AOC as

that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area including any terracing or access roads, [1] closely resembles the general surface configuration of the land prior to mining and [2] blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated * * *.

Under this definition the two principal standards for determining AOC are whether the surface configuration of the reclaimed area would (1) closely resemble the surface configuration of the land prior to mining; and (2) blend into and complement the drainage pattern of the surrounding terrain. In restoring AOC, both of these standards must be met.

The final definitions of "thin overburden" and "thick overburden" incorporate these two standards from the definition of AOC as the measure of whether the spoil and other available waste materials are sufficient to restore AOC. The definitions apply these two standards for AOC in the disjunctive, using the term or, because a failure to meet either standard would prevent the restoration of AOC, and thus establish the occurrence of thin or thick overburden.

As it did in 1983, OSM rejects the precise numerical limits which were included in the 1979 rules as being impractical for evaluating the utility of the overburden and other available waste materials to restore AOC. Defining thin and thick overburden in precise numerical terms is impractical because of the diversity of surface configurations and drainage patterns to which the final rule would apply

throughout the coal mining regions of the United States. Depending on the circumstances, inflexible numerical limits might be either too loose or too stringent, and seldom ideal.

OSM's first attempt at defining thick or thin overburden relied solely on the percentage change in overburden volume. In 1977, the proposed initial program rules prescribed thick or thin overburden as existing when the final thickness exceeded 1.2 of the initial thickness for thick overburden and when the final thickness was less than 0.8 of the initial thickness for thin overburden. (42 FR 44931, September 7, 1977). However, as acknowledged in the preamble to that rule, while OSM was using a numerical value as the standard, the primary purpose of the rules were to ensure that sites met approximate original contour. (42 FR 44921, September 7, 1977).

OSM altered its position in the final initial program rule, acknowledging at that time, that the precise numerical limits were insufficient by themselves. This position is discussed in the preamble to the final initial program rule.

Some concern was expressed over the distinction between thick and thin overburden. In particular, reviewers were concerned that not all operations needed modification of the requirement to achieve AOC. The regulations have been revised to require that whether thin or thick overburden conditions exist operations must achieve AOC whenever possible. (42 FR 62645, Dec. 27, 1977).

The final initial program rule (30 CFR 715.14(f)) added the following sentence to the proposed initial program rule.

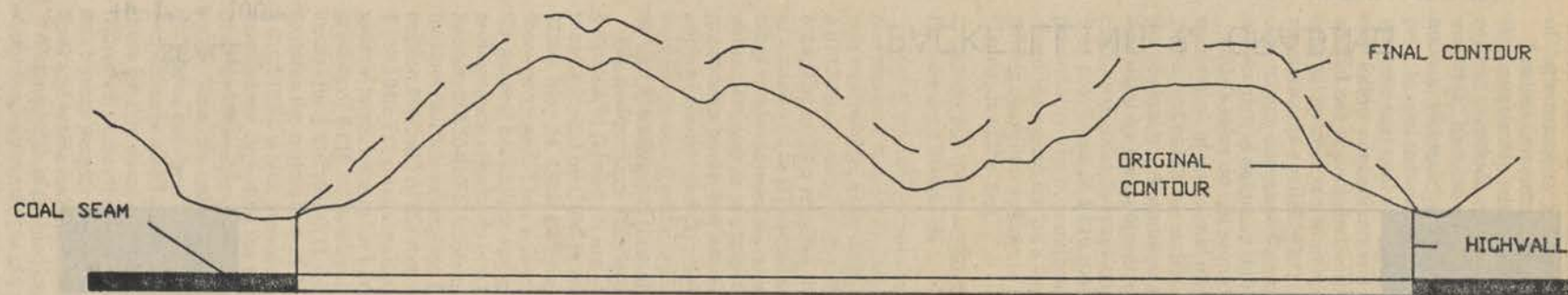
The provisions of paragraphs (g) and (h) [performance standards for thick and thin overburden] apply only when operations cannot be carried to comply with the requirements of paragraph (a) of this section to achieve AOC.

The 1979 final permanent regulatory program rules mirrored the final initial regulatory program by using the two pronged test, i.e., greater than 1.2 and achieve AOC or less than 0.8 and achieve AOC. By 1982, OSM recognized that this artificially constructed two pronged test was impractical. The numerical limits were only one part of a complex, site specific determination as to whether or not an operation could achieve AOC. In addition to being only one part of the decision there are situations in which the sites could qualify under the numerical limit but not meet the AOC criteria.

Figures 1 and 2 give examples of where reliance on precise numerical limits to determine whether thin or thick overburden conditions exist would lead to improper regulatory determinations as to whether the disturbed land should be returned to AOC. Figure 1 shows a situation where more than 20% of the premining volume has been lost but AOC can still be obtained. Figure 2 shows a situation where the post mining volume is more than 20% greater than the premining volume but AOC can still be obtained. In these situations an exemption from AOC for thin or thick overburden based on a precise 20% numerical limit would be inappropriate.

BILLING CODE 4310-05-M

AVAILABLE FILL > 120%
NO ADC VARIANCE NECESSARY

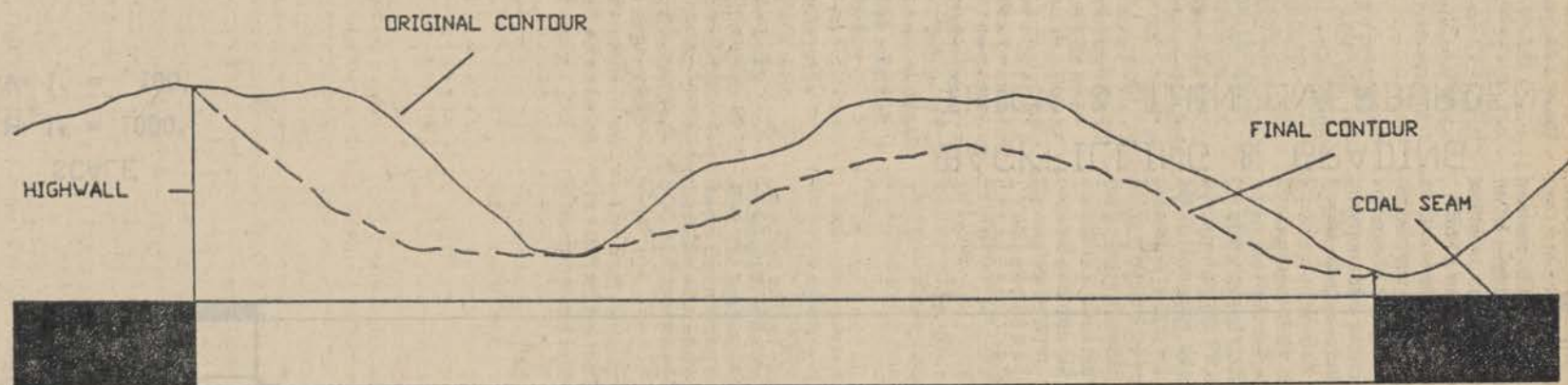


SCALE
H: 1" = 1000'
V: 1" = 100'

BACKFILLING & GRADING
THICK & THIN OVERBURDEN

FIGURE 1

AVAILABLE FILL < 80%
NO ADC VARIANCE NECESSARY



SCALE
H: 1" = 1000'
V: 1" = 100'

BACKFILLING & GRADING
THICK AND THIN OVERBURDEN

FIGURE 2

Evaluations of post-mining surface configuration and drainage pattern involve subjective professional judgments that must be custom-tailored to approximate the terrain at any given mine. The responsible regulatory authority is best equipped to determine the sufficiency of overburden to restore AOC in its own jurisdiction on a case-by-case basis. For these reasons OSM believes it is preferable to define "thin overburden" and "thick overburden" in a way so as to conform with the standards of the Act, while giving the regulatory authority sufficient discretion to apply these standards in a sound professional manner to the diverse conditions which prevail at individual mines in each particular State.

One commenter supported OSM's deletion of the numerical standards for thin and thick overburden and the rationale that no set of rigid numerical standards could possibly apply to all types of terrain. Another commenter supported OSM's functional approach to defining thin or thick overburden and deleting the numerical limitations of the 1979 regulations. The latter commenter also claimed that section 515(b)(3) of the Act provides all the guidance regulators can be given, and that OSM should adopt that explanation in order to avoid excessive detail in the performance standards.

Another commenter objected to deleting the numerical limitations contained in the 1979 regulations for determining what constitutes thin and thick overburden. This commenter asserted that OSM's proposed rule failed to justify deletion of the 1979 standards because OSM had not presented data showing these standards to be unworkable. The commenter claimed that such data is what the Court of Appeals had in mind in remanding the 1983 regulations on thin and thick overburden.

As discussed earlier, a precise 20% numerical limit calculated from a comparison of pre and post mining volumes is an impractical test for determining the existence of a thin or thick overburden exemption because such a percentage limit cannot always accommodate the diversity of surface configurations and drainage patterns to which the final rule applies. The appropriateness of a thin or thick exemption from the requirement to return to AOC must instead be evaluated on the ability of available overburden, following backfilling and grading, to return the surface configuration of the reclaimed land to that closely resembling the surface configuration of the land prior to mining

and to blend into the drainage patterns of the surrounding terrain.

Another commenter proposed that the thin overburden minimum standards be revised to include overburdens which are "thin" because of the removal of noncoal minerals by other operators prior to coal extraction. The commenter asserted that coal mining operations that follow noncoal mineral removal should not be excluded from the relaxed original contour reclamation requirements available to other surface coal mining operations where the overburden is naturally thin.

OSM's rules do not require the excavation of additional pits for the sole purpose of obtaining material to backfill the original pit. A situation such as described by the commenter should be evaluated under the previously mined area provisions of § 816.106, since, presumably, the noncoal mining operation would not be a "surface coal mining operation subject to the standards of the Act."

2. Section 816.104(b)—Thin Overburden Performance Standards

Final § 816.104(b) contains the performance standards that apply where thin overburden, as defined in § 816.104(a), occurs within the permit area. The section requires the permittee at a minimum to (1) use all spoil and other waste materials available from the entire permit area to attain the lowest practicable grade, but not more than the angle of repose; and (2) meet the general backfilling and grading requirements of 30 CFR 816.102 (a)(2) through (j).

The performance standards in § 816.104(b) (1) and (2) are identical to those adopted by OSM in 1983 (48 FR 23369, May 24, 1983) and are identical to those proposed. They will complement the general backfilling and grading performance standards in § 816.102. Section 816.104(b)(1) implements the thin overburden exemption found at section 515(b)(3) of the Act, while § 816.104(b)(2) stipulates that all of the general requirements for backfilling and grading of § 816.102 are applicable except for § 816.102(a)(1), which requires the restoration of AOC, and § 816.102(k), which provides exemptions, including the thin overburden exemption that do not apply. Thus, the only practical difference between the general performance standards in § 816.102 and those for thin overburden in § 816.104(b) (1) and (2) is that the latter section establishes priority for the use of limited spoil and waste material in reclamation.

A commenter expressed concern about the requirement to place spoil so as to achieve the lowest practicable

grade in §§ 816.104(b) and 816.105(b). The commenter interpreted lowest practicable grade to mean flat and pointed out that flat land may reduce landscape diversity, which reduces wildlife habitat, and may be geomorphically incompatible with upstream and downstream drainage characteristics. The commenter stated that § 515(b)(3) of the Act has a built-in contradiction (i.e., requires spoil be backfilled to "the lowest practicable grade" in order to achieve "an ecologically sound land use compatible with the surrounding region"). The commenter wanted the regulations to resolve this conflict and require backfilling in a manner compatible with the approved postmining land use and surrounding undisturbed land.

OSM agrees that "flat land" may not resemble the general configuration of the land prior to mining or complement the drainage pattern of the surrounding terrain. Nevertheless, the provisions of § 816.104(b) and 105(b), as taken from section 515(b)(3) of the Act, require the backfilled area to attain the lowest practicable grade, but not more than the angle of repose. The phrase "lowest practicable grade" does not require flat land. It requires the lowest grade that is compatible with the surrounding terrain. In describing reclamation in a thin overburden situation, Congress indicated that the final regrading of the mine site should resemble the original landscape. H.R. No. 95-218, 95th Cong., 1st Sess. 103 (1977). Thus, the regulations already do what the commenter wishes them to do.

3. Section 816.105(b)—Thick Overburden Performance Standards

Final § 816.105(b) contains the performance standards that apply where thick overburden, as defined in § 816.105(a), occurs within the permit area.

Where the reclamation plan indicates the occurrence of thick overburden, § 816.105(b) requires the permittee at a minimum to (1) restore the approximate original contour and then use the remaining spoil and other waste materials to attain the lowest practicable grade, but not more than the angle of repose; (2) meet the general backfilling and grading requirements of 30 CFR 816.102(a)(2) through (j); and (3) dispose of any excess spoil in accordance with 30 CFR 816.71 through 816.74.

The performance standards in § 816.105(b)(1) through (3) are identical to those adopted by OSM in 1983 (48 FR 23369, May 24, 1983), and as proposed. They complement the general backfilling

and grading performance standards in § 816.102. Section 816.105(b)(1) implements the thick overburden exemption found at section 515(b)(3) of the Act, while § 816.105(b)(2) provides that all of the general requirements for backfilling and grading of § 816.102 are applicable. Section 816.105(b)(3) references the former regulations governing the disposal of excess spoil, and ensures that all spoil and other waste materials that would exceed the angle of repose are disposed of in accordance with the requirements of the Act.

The only practicable differences between the general performance standards in § 816.102 and those for thick overburden in § 816.105(b) are that under the latter (1) after AOC is restored the permittee may continue to use any remaining spoil and other waste materials to attain the lowest practicable grade, but not more than the angle of repose; and (2) the permittee must dispose of any excess spoil in accordance with §§ 816.71 through 816.74.

I. Sections 816.133(d) and 817.133(d) AOC Variances

Final § 816.133(d), which is identical to proposed § 817.133(d), contains criteria for granting a variance from the requirement to restore disturbed areas to their approximate original contour. Included in paragraph (d)(1) is the stipulation that the variance be granted in accordance with § 785.16, thus limiting such variances to steep slope areas. Final § 785.16 renders the previous suspension of § 816.133(d) void, as it was based upon the suspension of former § 785.16.

A commenter recommended that § 816.133(d) be further clarified by adding language to limit its application to steep slope mining operations.

OSM disagrees. There is no need for additional language in § 816.133(d) to clarify that the section is limited in applicability to steep slope mining operations. That fact is indicated by the cross-reference to § 785.16 found at § 816.133(d)(1). Surface coal mining operations which qualify for a variance from AOC requirements under this section are obligated to adhere to § 785.16 which limits variances for steep slope operations.

III. Procedural Matters

A. Effect in Federal Program States and on Indian Lands

The rule applies through cross-referencing to those States with Federal programs. This includes California, Georgia, Idaho, Massachusetts,

Michigan, North Carolina, Oregon, Rhode Island, South Dakota, Tennessee, and Washington. The Federal programs for these States appear at 30 CFR parts 905, 910, 912, 921, 922, 933, 937, 939, 941, 942, and 947, respectively. The rule also applies, through cross-referencing, to Indian lands under the Federal program for Indian lands as provided in 30 CFR part 750.

B. Effect on State Programs

Following promulgation of this final rule, OSM will evaluate permanent State regulatory programs approved under section 503 of the Act to determine whether any changes in these programs will be necessary. If the Director determines that certain State program provisions should be amended in order to be made no less effective than the revised Federal rules, the individual States will be notified in accordance with the provisions of 30 CFR 732.17.

C. Federal Paperwork Reduction Act

This rule does not contain collections of information which require approval by the Office of Management and Budget under 44 U.S.C. 3501 *et seq.*

D. Executive Order 12291 and Regulatory Flexibility Act

The Department of the Interior has determined that the proposed rule is not a major rule under the criteria of Executive Order 12291 (February 17, 1981), and certifies that it will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The rule would affect a relatively small number of surface coal mining operations. The rule does not distinguish between small and large entities. The economic effects of the proposed rule are estimated to be minor, and no incremental economic effects are anticipated as a result of the rule.

E. National Environmental Policy Act

OSM has prepared environmental assessments and has made a finding that the final rules will not significantly affect the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C. 4332(2)(C). The environmental assessments are on file in the OSM Administrative Record, room 5131, 1100 L Street, NW., Washington, DC.

F. Agency Approval

Section 516(a) requires that, with regard to rules directed toward the surface effects of underground mining, OSM must obtain written concurrence from the head of the department which

administers the Federal Mine Safety and Health Act of 1977, the successor to the Federal Coal Mine Health and Safety Act of 1969. OSM has obtained the written concurrence of the Assistant Secretary for Mine Safety and Health, U.S. Department of Labor.

G. Author

The final author of this rule is Mr. Dennis M. Hunter, Jr., Chief, Research and Technical Standards Branch, Office of Surface Mining Reclamation and Enforcement.

List of Subjects

30 CFR Part 761

Historic preservation, National forests, National parks, National trails system, National wild and scenic rivers system, Surface mining, Underground mining, Wilderness areas, Wildlife refuges.

30 CFR Part 780

Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 784

Reporting and recordkeeping requirements, Underground mining.

30 CFR Part 785

Reporting and recordkeeping requirements, Surface mining, Underground mining.

30 CFR Part 816

Environmental protection, Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 817

Environmental protection, Reporting and recordkeeping requirements, Underground mining.

Accordingly, 30 CFR Parts 761, 780, 784, 785, 816 and 817 are amended as set forth below:

Dated: October 21, 1991.

David O'Neal,

Assistant Secretary—Land and Minerals Management.

PART 761—AREAS DESIGNATED BY ACT OF CONGRESS

1. The authority citation for part 761 continues to read as follows:

Authority: 30 U.S.C. 1201 *et seq.*

§ 761.5 [Amended]

2. Section 761.5 is amended by removing from the definition of Significant recreational, timber, economic, or other values incompatible with surface coal mining operations the

phrase "beyond an operator's ability to repair or restore."

PART 780—SURFACE MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENT FOR RECLAMATION AND OPERATION PLAN

3. The authority citation for part 780 continues to read as follows:

Authority: Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*, as amended; sec. 115 of Pub. L. 98-146, 30 U.S.C. 1257; 16 U.S.C. 470 *et seq.*; and Pub. L. 100-34.

§ 780.14 [Amended]

4. Section 780.14 paragraph (c) is amended by adding a comma and the citation "816.74(c)" after the citation "816.73(c)" in the first sentence.

§ 780.35 [Amended]

5. Section 780.35 paragraph (b) introductory text is amended by adding the words "except for the disposal of excess spoil on pre existing benches," to the beginning of the sentence.

PART 784—UNDERGROUND MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN

6. The authority citation for part 784 continues to read as follows:

Authority: Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*, as amended; sec. 115 of Pub. L. 98-146, 30 U.S.C. 1257; 16 U.S.C. 470 *et seq.*; and Pub. L. 100-34.

§ 784.23 [Amended]

7. Section 784.23 paragraph (c) is amended by adding a comma and the term "817.74(c)" after the term "817.73(c)" in the first sentence.

PART 785—REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING

8. the authority citation for part 785 is revised to read as follows:

Authority: 30 U.S.C. 1201 *et seq.*, as amended, and Pub. L. 100-34.

§ 785.16 [Amended]

9. The suspension of § 785.16, published in the Federal Register of November 20, 1986 (51 FR 41961), is removed effective January 16, 1992.

10. Section 785.16 is amended by revising the heading and the first sentence of paragraph (a) to read as follows:

§ 785.16 Permits incorporating variances from approximate original contour restoration requirements for steep slope mining.

(a) The regulatory authority may issue a permit for non-mountaintop removal, steep slope, surface coal mining and

reclamation operations which includes a variance from the requirements to restore the disturbed areas to their approximate original contour that are contained in §§ 816.102, 816.104, 816.105, and 816.107, or 817.102 and 817.107 of this chapter. * * *

PART 816—PERMANENT PROGRAM PERFORMANCE STANDARDS—SURFACE MINING ACTIVITIES

11. The authority citation for part 816 continues to read as follows:

Authority: Pub. L. 95-87 (30 U.S.C. 1201 *et seq.*), and Pub. L. 100-34, unless otherwise noted.

§ 816.74 [Amended]

12. Section 816.74 is amended by redesignating paragraph (e) as paragraph (h); by adding paragraphs (e), (f) and (g); and by revising paragraphs (a), (b), (c), and (d), to read as follows:

§ 816.74 Disposal of excess spoil: Preexisting benches.

(a) The regulatory authority may approve the disposal of excess spoil through placement on a preexisting bench if the affected portion of the preexisting bench is permitted and the standards set forth in §§ 816.102(c), (e) through (h), and (j), and the requirements of this section are met.

(b) All vegetation and organic materials shall be removed from the affected portion of the preexisting bench prior to placement of the excess spoil. Any available topsoil on the bench shall be removed, stored and redistributed in accordance with § 816.22 of this part. Substitute or supplemental materials may be used in accordance with § 816.22(b) of this part.

(c) The fill shall be designed and constructed using current, prudent engineering practices. The design will be certified by a registered professional engineer. The spoil shall be placed on the solid portion of the bench in a controlled manner and concurrently compacted as necessary to attain a long term static safety factor of 1.3 for all portions of the fill. Any spoil deposited on any fill portion of the bench will be treated as excess spoil fill under § 816.71.

(d) The preexisting bench shall be backfilled and graded to—

(1) Achieve the most moderate slope possible which does not exceed the angle of repose;

(2) Eliminate the highwall to the maximum extent technically practical;

(3) Minimize erosion and water pollution both on and off the site; and

(4) If the disposal area contains springs, natural or manmade water

courses, or wet weather seeps, the fill design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill, and ensure stability.

(e) All disturbed areas, including diversion channels that are not ripped or otherwise protected, shall be revegetated upon completion of construction.

(f) Permanent impoundments may not be constructed on preexisting benches backfilled with excess spoil under this regulation.

(g) Final configuration of the backfill must be compatible with the natural drainage patterns and the surrounding area, and support the approved postmining land use.

13. Section 816.81 is amended by revising the introductory text of paragraph (a) to read as follows:

§ 816.81 Coal mine waste: General Requirements.

(a) *General.* All coal mine waste disposed of in an area other than the mine workings or excavations shall be placed in new or existing disposal areas within a permit area, which are approved by the regulatory authority for this purpose. Coal mine waste shall be hauled or conveyed and placed for final placement in a controlled manner to—

14. Section 816.89 is amended by removing paragraph (d).

15. Section 816.100 is amended by removing the last sentence.

16. Section § 816.101 is added to read as follows:

§ 816.101 Backfilling and grading: Time and distance requirements.

(a) Except as provided in paragraph (b) of this section, rough backfilling and grading for surface mining activities shall be completed according to one of the following schedules:

(1) Contour mining. Within 60 days or 1,500 linear feet following coal removal;

(2) Area mining. Within 180 days following coal removal, and not more than four spoil ridges behind the pit being worked, the spoil from the active pit constituting the first ridge; or

(3) Other surface mining methods. In accordance with the schedule established by the regulatory authority. For States with approved State programs, schedules are subject to the State program approval process.

(b) The regulatory authority may extend the time allowed for rough backfilling and grading for the entire permit area or for a specified portion of the permit area if the permittee demonstrates in accordance with § 780.18(b)(3) of this chapter that additional time is necessary.

17. Section 816.104 is revised to read as follows:

§ 816.104 Backfilling and grading: Thin overburden.

(a) *Definition.* Thin overburden means insufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. Insufficient spoil and other waste materials occur where the overburden thickness times the swell factor, plus the thickness of other available waste materials, is less than the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:

(1) Closely resemble the surface configuration of the land prior to mining; or

(2) Blend into and complement the drainage pattern of the surrounding terrain.

(b) *Performance standards.* Where thin overburden occurs within the permit area, the permittee at a minimum shall:

(1) Use all spoil and other waste materials available from the entire permit area to attain the lowest practicable grade, but not more than the angle of repose; and

(2) Meet the requirements of §§ 816.102(a)(2) through (j) of this part.

18. Section 816.105 is revised to read as follows:

§ 816.105 Backfilling and grading: Thick overburden.

(a) *Definition.* Thick overburden means more than sufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. More than sufficient spoil and other waste materials occur where the overburden thickness times the swell factor exceeds the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:

(1) Closely resemble the surface configuration of the land prior to mining; or

(2) Blend into and complement the drainage pattern of the surrounding terrain.

(b) *Performance standards.* Where thick overburden occurs within the permit area, the permittee at a minimum shall:

(1) Restore the approximate original contour and then use the remaining spoil and other waste materials to attain the lowest practicable grade, but not more than the angle of repose;

(2) Meet the requirements of §§ 816.102(a)(2) through (j) of this part; and

(3) Dispose of any excess spoil in accordance with §§ 816.71 through 816.74 of this part.

§ 816.133 [Amended]

19. In § 816.133, the suspension of paragraph (d) is removed.

PART 817—PERMANENT PROGRAM PERFORMANCE STANDARDS—UNDERGROUND MINING ACTIVITIES

20. The authority citation for part 817 continues to read as follows:

Authority: Pub. L. 95-87 (30 U.S.C. 1201 et seq.), and Pub. L. 100-34, unless otherwise noted.

§ 817.74 [Amended]

21. Section 817.74 is amended by redesignating paragraph (e) as paragraph (h); by adding paragraphs (e), (f) and (g); and by revising paragraphs (a), (b), (c), and (d), to read as follows:

§ 817.74 Disposal of excess spoil: Preexisting benches.

(a) The regulatory authority may approve the disposal of excess spoil through placement on a preexisting bench if the affected portion of the preexisting bench is permitted and the standards set forth in § 817.102 (c), (e) through (h), and (j), and the requirements of this section are met.

(b) All vegetation and organic materials shall be removed from the affected portion of the preexisting bench prior to placement of the excess spoil. Any available topsoil on the bench shall be removed, stored and redistributed in accordance with § 817.22 of this part. Substitute or supplemental materials may be used in accordance with § 817.22(b) of this part.

(c) The fill shall be designed and constructed using current, prudent engineering practices. The design will be certified by a registered professional engineer. The spoil shall be placed on

the solid portion of the bench in a controlled manner and concurrently compacted as necessary to attain a long term static safety factor of 1.3 for all portions of the fill. Any spoil deposited on any fill portion of the bench will be treated as excess spoil fill under § 817.71.

(d) The preexisting bench shall be backfilled and graded to—

(1) Achieve the most moderate slope possible which does not exceed the angle of repose;

(2) Eliminate the highwall to the maximum extent technically practical;

(3) Minimize erosion and water pollution both on and off the site; and

(4) If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the fill design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill, and ensure stability.

(e) All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

(f) Permanent impoundments may not be constructed on preexisting benches backfilled with excess spoil under this regulation.

(g) Final configuration of the backfill must be compatible with the natural drainage patterns and the surrounding area, and support the approved postmining land use.

22. Section 817.81 is amended by revising the introductory text of paragraph (a) to read as follows:

§ 817.81 Coal mine waste: General requirements.

(a) *General.* All coal mine waste disposed of in an area other than the mine workings or excavations shall be placed in new or existing disposal areas within a permit area, which are approved by the regulatory authority for this purpose. Coal mine waste shall be hauled or conveyed and placed for final placement in a controlled manner to—

23. Section 817.89 is amended by removing paragraph (d).

24. In § 817.133, the suspension of paragraph (d) is removed.

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Federal Register

**Tuesday
December 17, 1991**

Part V

Department of Transportation

Federal Aviation Administration

14 CFR Part 1, et al.

Airspace Reclassification; Final Rule

DEPARTMENT OF TRANSPORTATION

14 CFR Parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171

[Docket No. 24456; Amendment Nos. 1-38, 11-35, 45-21, 61-92, 65-36, 71-14, 75-5, 91-227, 93-63, 101-5, 103-4, 105-10, 121-226, 127-44, 135-40, 137-14, 139-18, and 171-16]

RIN 2120-AB95

Airspace Reclassification

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the Federal Aviation Regulations (FAR) to adopt certain recommendations of the National Airspace Review (NAR) concerning changes to regulations and procedures in regard to airspace classifications. These changes are intended to: (1) Simplify airspace designations; (2) achieve international commonality of airspace designations; (3) increase standardization of equipment requirements for operations in various classifications of airspace; (4) describe appropriate pilot certificate requirements, visual flight rules (VFR) visibility and distance from cloud rules, and air traffic services offered in each class of airspace; and (5) satisfy the responsibilities of the United States as a member of the International Civil Aviation Organization (ICAO). The final rule also amends the requirement for minimum distance from clouds in certain airspace areas and the requirements for communications with air traffic control (ATC) in certain airspace areas; eliminates airport radar service areas (ARSAs), control zones, and terminal control areas (TCAs) as airspace classifications; and eliminates the term "airport traffic area." The FAA believes simplified airspace classifications will reduce existing airspace complexity and thereby enhance safety.

EFFECTIVE DATE: These regulations become effective September 16, 1993, except that §§ 11.61(c), 91.215(d), 71.601, 71.603, 71.605, 71.607, and 71.609 and Part 75 become effective December 12, 1991, and except that amendatory instruction number 20, § 71.1, is effective as of December 17, 1991 through September 15, 1993, and that §§ 71.11 and 71.19 become effective October 15, 1992. The incorporation by reference of FAA Order 7400.7 in § 71.1 (amendatory instruction number 20) is approved by the Director of the Federal Register as of December 17, 1991, through September 15, 1993. The incorporation by reference

of FAA Order 7400.9 in § 71.1 (amendatory instruction number 24) is approved by the Director of the Federal Register as of September 16, 1993 through September 15, 1994.

FOR FURTHER INFORMATION CONTACT:

Mr. William M. Mosley, Air Traffic Rules Branch, ATP-230, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-9251.

SUPPLEMENTARY INFORMATION:

Background

On April 22, 1982, the NAR plan was published in the *Federal Register* (47 FR 17448). The plan encompassed a review of airspace use and the procedural aspects of the ATC system. Organizations participating with the FAA in the NAR included: Aircraft Owners and Pilots Association (AOPA), Air Line Pilots Association (ALPA), Air Transport Association (ATA), Department of Defense (DOD), Experimental Aircraft Association (EAA), Helicopter Association International (HAI), National Association of State Aviation Officials (NASAO), National Business Aircraft Association (NBAA), and Regional Airline Association (RAA).

The main objectives of the NAR were to:

(1) Develop and incorporate a more efficient relationship between traffic flows, airspace allocation, and system capacity in the ATC system. This relationship will involve the use of improved air traffic flow management to maximize system capacity and to improve airspace management.

(2) Review and eliminate, wherever practicable, governmental restraints to system efficiency thereby reducing complexity and simplifying the ATC system.

(3) Revalidate ATC services within the National Airspace System (NAS) with respect to state-of-the-art and future technological improvements.

In furtherance of the foregoing objectives, several NAR task groups were organized and assigned to review various issues associated with airspace classifications and ATC procedures, pilot certification requirements, and aircraft equipment and operating requirements in the different categories of airspace areas. The recommendations formed the basis of three separate advance notices of proposed rulemaking (ANPRM): Notice No. 85-4, Terminal Airspace Reclassification (50 FR 5055; February 2, 1985); Notice No. 85-5, Airspace Reclassification/Services/Requirements (50 FR 5046; February 2,

1985); and Notice No. 85-15, Controlled Airspace Designations in International Airspace (50 FR 30798; July 7, 1985).

On March 12, 1990, ICAO through its Air Navigation Commission (ANC) formally adopted the airspace classification concept in amendment No. 33 to annex 11. The airspace classifications adopted by ICAO, along with the nearest equivalent U.S. airspace designations, are summarized as follows:

Class A Airspace (U.S. Positive Control Areas)

All operations must be conducted under instrument flight rules (IFR) and are subject to ATC clearances and instructions. ATC separation is provided to all aircraft.

Class B Airspace (U.S. Terminal Control Areas)

Operations may be conducted under IFR, special visual flight rules (SVFR), or VFR. However, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to all aircraft.

Class C Airspace (U.S. Airport Radar Service Areas)

Operations may be conducted under IFR, SVFR, or VFR; however, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to all aircraft operating under IFR or SVFR and, as necessary, to any aircraft operating under VFR when any aircraft operating under IFR is involved. All VFR operations will be provided with safety alerts and, upon request, conflict resolution instructions.

Class D Airspace (U.S. Control Zones for Airports with Operating Control Towers and Airport Traffic Areas that are not associated with a TCA or an ARSA)

Operations may be conducted under IFR, SVFR, or VFR; however, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to aircraft operating under IFR or SVFR only. All traffic will receive safety alerts and, on pilot request, conflict resolution instructions.

Class E Airspace (U.S. General Controlled Airspace)

Operations may be conducted under IFR, SVFR, or VFR. ATC separation is provided only to aircraft operating under IFR and SVFR within a surface area. As far as practical, ATC may provide safety alerts to aircraft operating under VFR.

Class F Airspace (U.S. Has No Equivalent)

Operations may be conducted under IFR or VFR. ATC separation will be provided, so far as practical, to aircraft operating under IFR.

Class G Airspace (U.S. Uncontrolled Airspace)

Operations may be conducted under IFR or VFR. ATC separation is not provided.

Discussion of the Amendments and Public Comments

This final rule is based on Notice of Proposed Rulemaking (NPRM) No. 89-28 (54 FR 42916; October 18, 1989). The rule amends parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171 and Special Federal Aviation Regulations (SFAR) 51-1, 60, and 62. These parts either incorporate airspace designations and operating rules or amend the existing rule to meet the new classification language.

Amendments to part 1 delete the definition of an "airport traffic area" and add definitions of "Special VFR conditions" and "Special VFR operations."

The amendments to part 71 establish a new subpart M—Jet Routes and Area High Routes that includes the existing rules in part 75 as of December 17, 1991; revise §§ 71.11 and 71.19 as of October 15, 1992; and revise all of part 71 to reclassify U.S. airspace in accordance with the ICAO designations as of September 16, 1993. (Further information on the amendments to part 71 appears in this discussion under Revisions to Part 71.) Under this amendment the positive control areas (PCAs), jet routes, and area high routes are reclassified as Class A airspace areas; TCAs are reclassified as Class B airspace areas; ARSAs are reclassified as Class C airspace areas; control zones for airports with operating control towers and airport traffic areas that are not associated with the primary airport of a TCA or an ARSA are reclassified as Class D airspace areas; all Federal airways, the Continental Control Area, control areas associated with jet routes outside the Continental Control Area, additional control areas, control area extensions, control zones for airports without operating control towers, transition areas, and area low routes are reclassified as Class E airspace areas; and airspace which is not otherwise designated as the Continental Control Area, a control area, a control zone, a terminal control area, an airport radar service area, a transition area, or special use airspace is reclassified as Class G

airspace. Because airport traffic areas are not classified as airspace areas, this amendment establishes controlled airspace for airports with operating control towers, but without control zones.

Part 75 is removed and reserved. The existing information is transferred to new subpart M of existing part 71.

Amendments to Part 91 change terminology to integrate the adopted airspace classifications into corresponding part 91 operating rules. In addition, the distance from cloud requirements in Class B airspace areas for VFR operations are amended to require a pilot to remain clear of clouds instead of the current requirements of 500 feet below, 1,000 feet above, and 2,000 feet horizontal from clouds in TCAs.

Section 91.215(d) is amended by relaxing current restraints on ATC in authorizing deviations to operators of aircraft that are not equipped with transponders. The amendment clarifies that the ATC facility having jurisdiction over the airspace concerned is permitted to authorize deviations from the transponder requirements in § 91.215(b) and that a request for a deviation due to an inoperative transponder or an operating transponder without operating automatic pressure altitude reporting equipment having Mode C capability may be made at any time. To provide maximum flexibility to ATC and aircraft operators, this amendment has an effective date of December 17, 1991.

Amendments to parts 11, 45, 61, 65, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171 change the terminology to integrate the adopted airspace classifications into respective regulations that refer to those airspace assignments and operating rules. In addition, § 11.61(c) is amended to meet an administrative change within the FAA for titles of persons under the term "Director."

The final rule includes modifications to the proposed rules based on amendments to the FAR that have become effective since the publication of NPRM No. 89-28. The section numbers to part 91 are changed to match the section numbers designated by amendment No. 91-211, Revision of General Operating and Flight Rules (54 FR 34292; August 19, 1989). Sections 91.129 and 91.130 are modified to include revisions to § 91.130 by amendment No. 91-215, Airport Radar Service Area (ARSA) Communication Requirement (55 FR 17736; April 26, 1990). Section 91.131(c) is modified to include revisions from amendment No. 91-216, Navigational Equipment Requirement in a Terminal Control Area (TCA) and Visual Flight Rules (VFR) Operations (55

FR 24822; June 18, 1990). Section 91.117(a) is modified to include revision by amendment No. 91-219, Revision to General Operating and Flight Rules (55 FR 34707; August 24, 1990).

Section 91.155(b)(1) is modified to include a revision by amendment No. 91-224, Inapplicability of Basic VFR Weather Minimums for Helicopter Operations (56 FR 48088; September 23, 1991). Section 91.155(c) was revised by amendment No. 91-213, Night-Visual Flight Rules Visibility and Distance from Cloud Minimums (55 FR 10610; March 22, 1990) and was corrected on July 19, 1990 (55 FR 29552) and November 13, 1990 (55 FR 47309).

In this amendment, the FAA does not adopt the proposal to lower the Continental Control Area to 1,200 feet above the surface and to establish the United States Control Area as proposed in NPRM No. 88-2. The FAA will not adopt this proposal and the regulatory agenda will be revised to delete the U.S. Control Area project.

On October 4, 1990, the FAA established SFAR No. 60—Air Traffic Control System Emergency Operations (55 FR 40758) and on December 5, 1990, the FAA established SFAR No. 62—Suspension of Certain Aircraft Operations from the Transponder with Automatic Pressure Altitude Reporting Capability Requirement (55 FR 50302). These SFARs are revised by replacing references to such terms as "terminal control area" with "Class B airspace area" to integrate the appropriate airspace classification.

Obsolete clauses in the existing rule are deleted and typographical errors in the proposal are corrected. The final rule also revises affected paragraphs of the existing rule requiring modification as a result of the rulemaking action but not included in NPRM No. 89-28. The modifications to these paragraphs replace such terms as "terminal control area" and "control zone" with language to integrate the appropriate airspace classification.

Under airspace reclassification, the Sabre U.S. Army Heliport (Tennessee) Airport Traffic Area will become a Class D airspace area; the Jacksonville, Florida, Navy Airport Traffic Area will become three separate but adjoining Class D airspace areas; and the El Toro, California, Special Air Traffic Rules will become part of the El Toro Class C airspace area. Currently, these airports operate under special air traffic rules in subparts N, O, and R of part 93. To achieve a goal of airspace reclassification, which is to simplify airspace, the existing rules for these airspace areas are to be deleted as of

September 16, 1993. Therefore, this amendment removes and reserves subparts N, O, and R of part 93 as of September 16, 1993.

Revisions to Part 71

Part 71 is revised in three stages.

The first revision creates a new subpart M—Jet Routes and Area High Routes, comprising §§ 71.601, 71.603, 71.605, 71.607, and 71.609. Under this amendment, the existing information in part 75 is transferred to new subpart M of part 71. Since this amendment does not change any operating rules, it is effective December 17, 1991. Section 75.17, Bearings; radials; miles, is not transferred to new subpart M, because the same information is located in existing § 71.19. NPRM No. 89-28 proposed to amend existing § 75.13. The proposed language is adopted in new § 71.605. A chart comparing old part 75 and new part 71, subpart M follows.

Part 75—Establishment of Jet Routes and Area High Routes	Part 71, Subpart M—Jet Routes and Area High Routes
§ 75.1 Applicability.	§ 71.601 Applicability.
§ 75.11 Jet routes.	§ 71.603 Jet routes.
§ 75.13 Area routes above 18,000 feet MSL.	§ 71.605 Area routes above 18,000 feet MSL.
§ 75.100 Jet routes.	§ 71.607 Jet route descriptions.
§ 75.400 Area high routes.	§ 71.609 Area high route descriptions.

Sections 71.607, Jet route descriptions, and 71.609, Area high route descriptions are not set forth in the full text of this final rule. The complete listing for all jet routes and area high routes can be found in FAA Order 7400.7, Compilation of Regulations, which was last published as of April 30, 1991, and effective November 1, 1991. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, (202) 267-3484. Copies may be inspected in Docket Number 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, room 915G, 800 Independence Avenue, SW., Washington, DC 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, NW., room 8401, Washington, DC. The part 75 sections referenced in FAA Order 7400.7 will be redesignated as part 71 sections in the next revision to FAA Order 7400.7.

The second revision amends existing § 71.11, Control zone, and § 71.19, Bearings; radials; miles, and is effective October 15, 1992. This revision relates to the FAA's parallel reviews of certain airspace areas. The revision to § 71.11 permits the Administrator to terminate the vertical limit of a control zone at a specified altitude. The revision to § 71.19 provides for the conversion from statute miles to nautical miles and consists of the same language as § 71.7 that is effective September 16, 1993. More detail on the review of certain airspace areas is found under the title Implementation of Airspace Reclassification.

The third revision to part 71 establishes a new part 71 that includes the adopted airspace designations. This amendment, which is effective September 16, 1993, transfers the current sections of existing part 71, including subpart M—Jet Routes and Area High Routes, to this new part 71. The following table lists the sections of existing part 71, including subpart M and the corresponding sections in the new part 71 that are effective September 16, 1993. Subparts B through K and §§ 71.501(b), 71.607, and 71.609, which list airspace descriptions, are not set forth in the full text of this final rule. The complete listing for these airspace designations can be found in FAA Order 7400.9, Airspace Reclassification, which is effective September 16, 1993. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, (202) 267-3484. Copies may be inspected in Docket Number 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, room 915G, 800 Independence Avenue, SW., Washington, DC 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, NW., room 8401, Washington, DC.

Existing Part 71	Revised Part 71 that is effective September 16, 1993, and FAA Order 7400.9
<i>Subpart A—General</i>	<i>Subpart A—General; Class A airspace</i>
§ 71.1 Applicability.	§ 71.1 Airspace classification.
§ 71.3 Classification of Federal airways.	§ 71.73 Classification of Federal airways.
§ 71.5 Extent of Federal airways.	§ 71.75 Extent of Federal airways.

Existing Part 71	Revised Part 71 that is effective September 16, 1993, and FAA Order 7400.9
§ 71.6 Extent of area low routes.	§ 71.77 Extent of area low routes.
§ 71.7 Control areas.	Not applicable.
§ 71.9 Continental control area.	§ 71.71 Class E airspace.
§ 71.11 Control zones.	Not applicable.
§ 71.12 Terminal control areas.	§ 71.41 Class B airspace.
§ 71.13 Transition areas.	§ 71.71 Class E airspace.
§ 71.14 Airport radar service areas.	§ 71.51 Class C airspace.
§ 71.15 Positive control areas.	§ 71.31 Class A airspace.
§ 71.17 Reporting points.	§ 71.5 Reporting Points.
§ 71.19 Bearings; Radials; Miles.	§ 71.7 Bearings, radials, mileages.
<i>Subpart B—Colored Federal Airways</i>	<i>Subpart E—Class E Airspace</i>
§ 71.101 Designation.	Subpart E of FAA Order 7400.9.
§ 71.103 Green Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.105 Amber Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.107 Red Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.109 Blue Federal airways.	Subpart E of FAA Order 7400.9.
<i>Subpart C—VOR Federal Airways</i>	<i>Subpart E—Class E Airspace</i>
§ 71.121 Designation.	§ 71.79 Designation of VOR Federal airways.
§ 71.123 Domestic VOR Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.125 Alaskan VOR Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.127 Hawaiian VOR Federal airways.	Subpart E of FAA Order 7400.9.
<i>Subpart D—Continental Control Area</i>	<i>Subpart E—Class E Airspace</i>
§ 71.151 Restricted areas included.	Subpart E of FAA Order 7400.9.
<i>Subpart E—Control Areas and Control Area Extensions</i>	<i>Subpart E—Class E Airspace</i>
§ 71.161 Designation of control areas associated with jet routes outside the continental control area.	§ 71.71 Class E airspace and Subpart E of FAA Order 7400.9.
§ 71.163 Designation of additional control areas.	§ 71.71 Class E airspace and Subpart E of FAA Order 7400.9.
§ 71.165 Designation of control areas extensions.	Subpart E of FAA Order 7400.9.
<i>Subpart F—Control Zones</i>	<i>Subpart D—Class D Airspace</i>
§ 71.171 Designation.	<i>Subpart E—Class E Airspace</i>
<i>Subpart G—Transition Areas</i>	<i>Subpart E—Class E Airspace</i>
§ 71.181 Designation.	Subpart E of FAA Order 7400.9.
<i>Subpart H—Positive Control Areas</i>	<i>Subpart A—General; Class A Airspace</i>
§ 71.193 Designation.	§ 71.33 Class A airspace areas.
<i>Subpart I—Reporting Points</i>	<i>Subpart H—Reporting Points</i>
§ 71.201 Designation.	§ 71.901 Applicability.
§ 71.203 Domestic low altitude reporting points.	Subpart H of FAA Order 7400.9.

Existing Part 71	Revised Part 71 that is effective September 16, 1993, and FAA Order 7400.9
§ 71.207 Domestic high altitude reporting points.	Subpart H of FAA Order 7400.9.
§ 71.209 Other domestic reporting points.	Subpart H of FAA Order 7400.9.
§ 71.211 Alaskan low altitude reporting points.	Subpart H of FAA Order 7400.9.
§ 71.213 Alaskan high altitude reporting points.	Subpart H of FAA Order 7400.9.
§ 71.215 Hawaiian reporting points.	Subpart H of FAA Order 7400.9.
Subpart J—Area Low Routes	Subpart E—Class E Airspace
§ 71.301 Designation.	Subpart E of FAA Order 7400.9.
Subpart K—Terminal Control Areas	Subpart B—Class B Airspace
§ 71.401(a) Designation.	Subpart B of FAA Order 7400.9.
§ 71.401(b) Terminal control areas.	Subpart B of FAA Order 7400.9.
Subpart L—Airport Radar Service Areas	Subpart C—Class C Airspace
§ 71.501 Designation.	Subpart C of FAA Order 7400.9.
Subpart M—Jet Routes and Area High Routes	Subpart A—General; Class A Airspace
§ 71.601 Applicability.	Not applicable.
§ 71.603 Jet routes.	Subpart A of FAA Order 7400.9.
§ 71.605 Area routes above 18,000 feet MSL.	Subpart A of FAA Order 7400.9.
§ 71.607 Jet route descriptions.	Subpart A of FAA Order 7400.9.
§ 71.609 Area high route descriptions.	Subpart A of FAA Order 7400.9.

Discussion of Comments

A total of 205 commenters submitted comments to Docket No. 24456 on NPRM No. 89-28. The FAA considered these comments in the adoption of this rule and changes to the proposals were made accordingly. Some comments did not specifically apply to any particular proposal addressed in NPRM No. 89-28. These comments related to the requirements for a transponder with Mode C capabilities, the FAA's anti-drug program, and the proposed TCA for the Washington-Baltimore metropolitan area.

Comments submitted on NPRM No. 89-28 reflect the views of a broad spectrum of the aviation public. The commenters included individuals as well as organizations representing commercial and general aviation pilots. Organizations that commented on NPRM No. 89-28 include: AOPA, ALPA, Air Traffic Control Association (ATCA), ATA, Alaska Airmen's Association, Arizona Pilots Association, Canadian Owners and Pilots Association (COPA), EAA, Ohio Department of Transportation, and Soaring Society of America (SSA).

The following is a discussion of issues addressed in the comments in accordance with the reclassification effort and each classification of airspace. A general division entitled, Additional Comments, addresses issues that do not affect a specific airspace classification. Each discussion includes a description of the final amendment and an explanation of the FAA's views.

Reclassification of Airspace

One hundred and forty-one comments on the proposal to reclassify U.S. airspace to meet ICAO standards were submitted. Sixty-eight supported reclassification and 69 opposed reclassification. Four commenters neither supported nor opposed the reclassification effort, but offered observations.

The 68 supporting comments include those submitted by the ATA, ATCA, and COPA. The COPA stated that on an average, approximately 60,000 general aviation aircraft cross the U.S./Canadian border each year. Some commenters stated that the proposed classifications are easier to understand than the current classifications and noted that the proposed classifications would help develop standardization. Two flight instructors commented that the proposed classifications would aid in the teaching of the airspace system to new pilots.

The 69 opposing comments include the Arizona Pilots Association, EAA, and SSA. Several comments, including EAA's, asserted that the current airspace designation names are more descriptive, and hence, easier to remember. Several comments, including one from the Arizona Pilots Association, stated that the proposal would cause confusion, while other commenters alleged that the proposal would only benefit pilots who operate internationally.

Both the SSA and the Arizona Pilots Association recommend that existing airspace nomenclature be retained and a table be included in the Airman's Information Manual (AIM) or part 91 to correlate U.S. airspace designations and ICAO equivalents.

The four comments submitted that do not directly support or oppose the proposal include those from the Alaska Airmen's Association, ALPA, and AOPA. The AOPA expressed concerns about how pilots would be reeducated during the transition phase that would precede the adoption of the proposed airspace reclassification. AOPA recommended that the FAA take five steps to ensure proper pilot education: (1) Convene a government, industry, and

user meeting before the issuance of a final rule to consider the implications of final rule adoption; (2) ensure that all necessary funding is in place, including monies for the specific purpose of pilot education; (3) adopt a dual airspace system during the transition phase; (4) coordinate with the National Oceanic and Atmospheric Administration (NOAA) to ensure that all charts are printed in a timely manner; and (5) amend the flight review requirements to reflect explicitly the need to discuss airspace classifications. The FAA agrees that the aviation public needs to be educated in airspace reclassification. Therefore, the FAA has developed an education and transition program, which is discussed under "Education of the Aviation Community."

As proposed, the FAA will reclassify U.S. airspace in accordance with ICAO standards. Airspace areas, with the exception of special use airspace (SUA) designations, will be classified by a single alphabet character. The FAA believes that reclassification of U.S. airspace simplifies the airspace system, achieves international commonality, enhances aviation safety, and satisfies the responsibility of the United States as a member of ICAO.

Some commenters misunderstood the proposal on airspace reclassification. These commenters understood Class A airspace areas to be en route airspace and Class B, Class C, and Class D airspace areas to be terminal airspace. The recommended ICAO airspace classes are not based on whether the airspace area is designated for "en route" or "terminal" operations, but rather on other factors that include type of operation (i.e., IFR, VFR) and ATC services provided. (The table below lists the new airspace classifications, its equivalent in the existing airspace classification, and its features, which would apply to terminal and en route airspace areas.) For example, under this rule Class C airspace is designated in terminal areas. Class C airspace in another country could be designated in en route areas. However, the type of operation, ATC services provided, minimum pilot qualifications, two-way radio requirements, and VFR minimum visibility and distance from cloud requirements in that country's Class C airspace will be similar to the Class C airspace areas designated in the United States. As adopted by the FAA, Class A airspace areas are designated in positive control en route areas; Class B, Class C, and Class D airspace areas are designated in terminal areas; and Class E airspace areas are designated in both en route (low altitude) and terminal

areas. However, the rules are written in a manner that the classes of airspace will not be limited to terminal or en

route airspace areas. For example, if a regulation only applies to operations in a terminal environment, the rule

specifies that the airspace is "designated for an airport."

AIRSPACE CLASSIFICATIONS

Airspace features	Class A airspace	Class B airspace	Class C airspace	Class D airspace	Class E airspace	Class G airspace
Current Airspace Equivalent...	Positive Control Areas.	Terminal Control Areas.	Airport Radar Service Areas.	Airport Traffic Areas and Control Zones.	General Controlled Airspace.	Uncontrolled Airspace
Operations Permitted	IFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR
Entry Prerequisites	ATC clearance	ATC clearance	ATC clearance for IFR Radio contact for all.	ATC clearance for IFR Radio contact for all.	ATC clearance for IFR Radio contact for all IFR.	None
Minimum Pilot Qualifications ..	Instrument rating	Private or student certificate.	Student certificate	Student certificate	Student certificate	Student certificate
Two-way radio communications.	Yes	Yes	Yes	Yes	Yes for IFR operations.	No
VFR Minimum Visibility	Not applicable	3 statute miles	3 statute miles	3 statute miles	* 3 statute miles	** 1 statute mile
VFR Minimum Distance from Clouds.	Not applicable	Clear of clouds	500 feet below, 1,000 feet above, and 2,000 feet horizontal.	500 feet below, 1,000 feet above, and 2,000 feet horizontal.	* 500 feet below, 1,000 feet above, and 2,000 feet horizontal.	** 500 feet below, 1,000 feet above, and 2,000 feet horizontal
Aircraft Separation	All	All	IFR, SVFR, and runway operations.	IFR, SVFR, and runway operations.	IFR, SVFR	None
Conflict Resolution	Not applicable	Not applicable	Between IFR and VFR operations.	No	No	No
Traffic Advisories	Not applicable	Not applicable	Yes	Workload permitting	Workload permitting	Workload permitting
Safety Advisories	Yes	Yes	Yes	Yes	Yes	Yes

* Different visibility minima and distance from cloud requirements exist for operations above 10,000 feet MSL.

** Different visibility minima and distance from cloud requirements exist for night operations, operations above 10,000 feet MSL, and operations below 1,200 feet AGL.

Offshore Airspace

The FAA adopts, as proposed, the NAR recommendations NAR 3-2.1.1—Offshore Airspace Nomenclature, NAR 3-2.1.2—Offshore Control Area Uniform Base, NAR 3-2.1.3—Offshore Control Area Identification, and NAR 3-2.1.4—Offshore Airspace Classification, which consider offshore airspace areas. However, NAR 3-2.1.2, which recommends a uniform base for offshore control areas of 1,200 feet above the surface unless otherwise designated, and NAR 3-2.1.3, which recommends that offshore control areas be identified with a name as opposed to a number are contingent on the FAA's further review. (More details on the review process appear later in this document under the title Implementation of Airspace Reclassification.) Any changes to offshore airspace areas resulting from the FAA's review will be accomplished by separate rulemaking actions. The FAA's review is being conducted in compliance with Executive Order 10854, which requires FAA consultation with both the Departments of State and Defense before designating controlled international airspace. The FAA expects that most offshore airspace areas will be classified as Class E or Class A airspace areas.

Education of the Aviation Community

The FAA agrees with the comments that the aviation public needs to be

educated in airspace reclassification. To ensure that the aviation community can become knowledgeable about the new airspace classifications and that aeronautical charts can be updated, the new airspace classification will not become effective until September 16, 1993.

The FAA has begun to coordinate with a task group of the Interagency Air Cartographic Committee (IACC) and the National Ocean Service (NOS), which will begin to update aeronautical charts. During the transition, the FAA will update its orders, manuals, handbooks, and advisory circulars, and will provide pilot/controller education. Significant dates in the transition process appear below with additional discussion following.

AIRSPACE RECLASSIFICATION TRANSITION

Tentative date	Event
October 15, 1992.	First sectional aeronautical charts (SAC), world aeronautical charts (WAC), and terminal aeronautical charts (TAC) are published with legends that indicate both existing and future airspace classifications.
March 4, 1993	Initial charting changes are completed for the SAC and TAC.
June 24, 1993	North Pacific, Gulf of Mexico, and Caribbean planning charts are published with legends that indicate both existing and future airspace classifications.

AIRSPACE RECLASSIFICATION TRANSITION—Continued

Tentative date	Event
August 19, 1993	Flight Case Planning and North Atlantic Route charts are published with legends that indicate existing and future airspace classifications.
September 16, 1993.	New airspace classifications become effective. All charts begin publication with legends that indicate both the new airspace classification and the former airspace classification. All related publications are updated.
March 3, 1994	First charts are published with legends that only indicate the new airspace classifications.
August 17, 1994	All charts are published with legends that only indicate the new airspace classifications.

Coordination with a task group of the IACC and the NOS will continue throughout the transition. An anticipated modification to the symbols on aeronautical charts is the addition of a segmented magenta line to represent the controlled airspace area for airports without operating control towers that extends upward from the surface (Class E airspace). A segmented blue line (which currently depicts a control zone) will denote a Class D airspace area, the controlled airspace for airports with operating control towers that are not the primary airport of a TCA or an ARSA.

The legends in aeronautical charts will include both the existing airspace classifications and the airspace classifications to be effective September 16, 1993. For example, the solid blue line that symbolizes a TCA will be followed by "TCA (Class B)." The first charts with a dual legend will be published October 15, 1992. Commencing September 16, 1993, the legends on these charts will be reversed (e.g., a solid blue line will be followed by "Class B (TCA)"). Between March 3 and August 17, 1994, the use of dual indication legends will be phased out.

Between October 1992 and March 1993, educational materials such as pocket guides, a video, and posters will be issued to instruct the aviation public on airspace reclassification. The FAA will begin to update the AIM and other publications, as well as FAA orders, manuals, handbooks, and advisory circulars that must be revised to include the new airspace classifications and an explanation of the transition and implementation procedures.

The transition and implementation of the Airspace Reclassification final rule also will include parallel reviews of certain current airspace designations to meet the new airspace classifications. A full discussion on this review appears later in this document under the title Implementation of Airspace Reclassification.

Class A Airspace

NPRM No. 89-28 proposed to reclassify the PCAs as Class A airspace areas with no other alterations to this airspace. Four commenters, including AOPA, neither supported nor opposed this classification; however, they offered comments and modifications. Some commenters stated that if the FAA adopts the Class A designation for the PCAs, Class A airspace areas should remain en route airspace and should not be lower than 18,000 feet mean sea level (MSL).

As proposed, the FAA will reclassify the PCAs as Class A airspace areas. In addition, jet routes and area high routes will be reclassified as Class A airspace areas. These airspace areas, which consist of direct courses for navigating aircraft at altitudes between 18,000 feet MSL and flight level 450, inclusive, meet the criteria of Class A airspace as adopted by ICAO.

As noted earlier, the recommended ICAO airspace classes are not based on whether the airspace area is designated for "en route" or "terminal" operations. Any new Class A airspace areas would be proposed in separate rulemaking actions.

Class B Airspace

NPRM No. 89-28 proposed to reclassify TCAs as Class B airspace areas and to amend the minimum distances by which aircraft operating under VFR must remain from clouds. The current VFR minimum distance requirements of 500 feet below, 1,000 feet above, and 2,000 feet horizontal from clouds will be amended to require that the pilot must remain clear of clouds.

One comment supports and two comments specifically oppose the proposed reclassification. Twelve comments on the proposal to amend minimum distance from clouds for VFR operations in Class B airspace areas were received. Eight of these comments support and four oppose the proposal.

The comments submitted in support of the proposal to reclassify TCAs as Class B airspace areas and to modify the minimum distances from cloud for VFR operations include those from AOPA, the Alaska Airmen's Association, EAA, and SSA. AOPA stated that the proposal "is a positive step in improvement of VFR traffic flow within" Class B airspace areas.

A commenter in support of reclassification stated that some of the areas to be classified as Class B airspace areas could be redesignated as Class C airspace areas.

The four comments submitted in opposition to the proposed amendment on distance from cloud requirements for VFR operations include a comment from ALPA. Some commenters stated that the proposal to modify the minimum distance from clouds for VFR flight in Class B airspace areas reduces the existing margin of safety. ALPA further stated that the ability of a pilot to maintain visual contact with other aircraft is reduced if aircraft operate in close proximity to clouds. One commenter stated that the proposals do not answer the need for clear radio failure procedures in Class B airspace areas. Another commenter stated that Class B airspace areas are actually divided into two types of Class B airspace: One in which a private pilot certificate is required and one in which, at a minimum, only a student pilot certificate is required.

This rulemaking reclassifies existing airspace areas with the equivalent recommended ICAO airspace area. It does not redesignate existing airspace areas. For example, the redesignation of a Class B airspace area (TCA) to a Class C airspace area (ARSA) is beyond the scope of this rulemaking. The FAA believes that the elimination of terminal areas designated as Class B airspace

areas would create a substantial adverse impact on the safe and efficient control of air traffic in those high volume terminal areas. Class B airspace areas, like the TCAs that preceded them, provide more efficient control in terminal areas where there is a large volume of air traffic and where a high percentage of that traffic is large turbine-powered aircraft. Additionally, on July 25, 1991, the FAA revised FAA Order 7110.65, Air Traffic Control, by adopting specific separation standards for operations under VFR in existing TCAs. These standards require air traffic controllers to separate aircraft operating under VFR in existing TCAs from other aircraft operating under VFR and IFR.

As stated in NPRM No. 89-28 in response to NAR 1-7.2.9—Recommended VFR Minima, the FAA views the relaxation of the distance from cloud requirements for VFR operations as a modification that would enhance rather than reduce safety. Under the existing regulations, a pilot operating an aircraft under VFR in a TCA (Class B airspace) is provided with ATC services and is subject to ATC clearances and instructions. For the pilot operating under VFR to remain specific distances from clouds, the pilot must alter course or assigned heading/route, which is a disruption to traffic flow and could be a compromise to safety. The amendment will increase safety for pilots operating under VFR and ATC by permitting these pilots to remain clear of clouds in Class B airspace areas, but not requiring them to remain a specific distance from clouds. However, if an ATC instruction to a pilot operating an aircraft under VFR could place that aircraft in a cloud, FAR § 91.3, Responsibility and authority of the pilot in command, requires the pilot in command to be responsible for ensuring that the aircraft does not enter a cloud and any such ATC instruction may be refused.

Accordingly, as proposed, the FAA will reclassify TCAs as Class B airspace areas and amend the distance from cloud requirements for VFR operations to clear of clouds.

Even though ATC communication requirements for operations in Class B airspace areas are the same as those that exist in TCAs, the relaxation of the distance from cloud requirements will become effective with the new airspace classifications. This will ensure that all users are familiar with the amendment when it becomes effective.

The amendment to reclassify TCAs as Class B airspace areas does not modify the current operating rules for

communications. Lost communication requirements are addressed in paragraph 470, Two-way Radio Communications Failure, of the AIM and are not within the scope of the rulemaking.

The FAA accepted NAR 1-7.3.3—Pilot Requirements for Operations in a TCA, under the provisions of the existing requirements; hence, the reclassification of TCAs as Class B airspace areas meets existing regulations on minimum airman certificate levels. Section 61.95 of the FAR, which lists student pilot requirements for operations in a TCA (Class B airspace), is revised to meet the new airspace classification. Solo student pilot activity is, under both the existing regulations and this final rule, prohibited at certain airports.

Class C Airspace

Three comments were submitted on the reclassification of ARSAs as Class C airspace areas. None of the comments specifically support or oppose the reclassification. All of the comments, including one from EAA, addressed additional modifications.

Two commenters noted that the proposal for VFR operations in Class B airspace areas to remain clear of clouds could be applied to Class C airspace areas.

In its comment, EAA opposed any increase in the size of Class C airspace areas. Other recommendations by commenters included the need for clear radio failure procedures and the need for designated areas that do not require communications with ATC when the pilot desires to use an uncontrolled airport within Class C airspace areas.

As proposed, the FAA will reclassify ARSAs as Class C airspace areas. No other modifications to Class C airspace areas or changes in operating rules were proposed. An ARSA that currently operates on a part-time basis is classified as Class C part-time and Class D or Class E at other times.

Aircraft operating under VFR in Class C airspace areas operate under less stringent requirements than aircraft operating under VFR in Class B airspace areas and are not provided the same separation by ATC. Therefore, the relaxation of the VFR distance from cloud requirements in Class C airspace areas to remain clear of clouds would not be in accordance with safety precautions. As noted earlier, lost communication procedures are addressed in paragraph 470, Two-way Radio Communications Failure, of the AIM. Since Class C airspace areas often have a high number of aircraft that operate under IFR, a relaxation of existing communications requirements

would not be in the interest of safety. Any modifications to the dimensions or operating requirements for Class C airspace areas are outside the scope of this rulemaking.

Class D Airspace

NPRM No. 89-28 proposed to reclassify control zones for airports with operating control towers and airport traffic areas, not associated with a TCA or an ARSA, as Class D airspace areas. In addition, NPRM No. 89-28 proposed to: (1) Raise the ceiling to up to, and including, 4,000 feet from the surface of the airport; (2) require aircraft in Class D airspace areas to establish two-way radio communications with ATC; and (3) convert the lateral unit of measurement from statute miles to nautical miles.

One hundred and forty comments concerning the proposal to establish the ceiling of the Class D airspace areas at 4,000 feet above the surface were submitted. All of the comments opposed the proposal.

Of the 83 comments regarding the proposal to require pilots who operate in Class D airspace areas to establish two-way radio communications with ATC, two supported the proposal and 80 opposed it. One comment neither supported nor opposed the proposals.

One hundred and forty-three comments related to the proposal to convert the lateral unit of measurement of Class D airspace areas from statute to nautical miles were submitted. Most interpreted the proposal to mean that the lateral size of the airspace areas would change from 5 statute miles to 5 nautical miles. (The FAA's intent in NPRM No. 89-28 is to convert statute miles as a unit of measurement to the equivalent in nautical miles.) Twelve comments supported and 131 comments opposed the proposal. Most of the commenters who specifically opposed the use of nautical miles instead of statute miles were opposed to a 5 nautical mile lateral measurement of Class D airspace areas.

The commenters who support the proposed conversion from statute to nautical miles or the proposed two-way radio communications requirements with ATC submitted suggestions and reasons for support. Some of these comments stated that the standardized use of nautical miles as opposed to statute miles could be expanded to weather reports, visibility requirements, and distance from cloud requirements above 10,000 feet MSL. ATCA stated that the proposal for two-way radio communications with ATC "erases a potentially dangerous practice and is long overdue." Another commenter suggested that a corridor could be

provided in Class D airspace areas for operations at satellite airports without operating control towers.

The 140 commenters that opposed the proposed ceiling of 4,000 feet above the surface included AOPA, the Alaska Airmen's Association, the Arizona Pilots Association, EAA, the Ohio Department of Transportation, and SSA. These same organizations are represented in the 131 comments that opposed the proposed conversion from statute to nautical miles and the 80 comments that oppose the proposed two-way radio communications requirements with ATC.

Several comments, including one from EAA, were submitted on the effects of the proposed ceiling modification and communications requirements on operations under SFAR No. 51-1—Special Flight Rules in the Vicinity of Los Angeles International Airport. According to the comments, the proposal would raise the ceiling of the airport traffic areas at Santa Monica and Hawthorne Airports into the Special Flight Rules Area. The commenters also stated that the proposed two-way radio communication requirements with ATC may not allow aircraft, especially those with one radio, to listen to an advisory frequency.

Some commenters, including SSA, stated that airport traffic areas (Class D airspace) could be depicted on aeronautical charts. Several commenters, including AOPA, the Alaska Airmen's Association, EAA, and the Ohio Department of Transportation stated that the proposals would increase air traffic controller workload. Some comments, including one from AOPA, stated that the proposal would increase pilot workload or that no safety benefit exists for the proposed modifications.

Several commenters, including AOPA and EAA, requested that the ceiling of Class D airspace areas be lowered to 2,000 feet or 2,500 feet above the surface. The commenters stated that the lower altitudes are adequate for the arrival and departure of aircraft. Other commenters, including the Alaska Airmen's Association and SSA, recommended retaining the current ceiling of 3,000 feet above the surface.

Commenters stated that the proposals for modifying the size of airspace and for requiring two-way radio communications with ATC would be a burden to aircraft that fly at low altitudes, and that some aircraft would need to fly a minimum of 5,500 feet MSL as opposed to 3,500 feet MSL. Some commenters stated that the proposal would burden pilots of airplanes that do not have radios. One commenter noted

that pilots who fly older aircraft with no radios or navigational aids do not pose a threat to commercial aviation.

Several comments, including those submitted by the AOPA and the Alaska Airmen's Association, stated that the proposal for two-way radio communications with ATC would not permit aircraft to listen to the common traffic advisory frequency (CTAF) of satellite airports. Additional comments, including those submitted by the AOPA and EAA, noted that air traffic controllers in control towers cannot provide effective traffic advisories for satellite airports. Some commenters, including EAA and the Ohio Department of Transportation, stated that the proposed two-way radio communication requirements with ATC are not necessary because operations at satellite airports usually do not interfere with airports with operating control towers. Another commenter noted that a pilot who desires to use a satellite airport and needs to fly near an airport with an operating control tower would need to notify the local ATC facility.

Commenters, including the Arizona Pilots Association and EAA, recommended that the lateral unit of measurement of Class D airspace areas be designated at 4 nautical miles.

As proposed, control zones for airports with operating control towers and airport traffic areas that are not associated with a TCA or an ARSA are reclassified as Class D airspace areas. After considering public comment and re-examining technical criteria, the FAA has determined that: (1) The ceiling of a Class D airspace area (designated for an airport) will normally be designated at 2,500 feet above the surface of the airport converted to mean sea level (MSL), and rounded to the nearest 100 foot increment; (2) two-way radio communications with ATC will be required; and (3) the lateral dimensions will be expressed in nautical miles rounded up to the nearest tenth of a mile. The actual lateral and vertical dimensions will be determined on an individual basis using revised criteria in FAA Order 7400.2C, Procedures for Handling Airspace Matters. (More detail on the review of airspace appears under the title Implementation of Airspace Reclassification.)

Airspace at an airport with a part-time control tower is classified as a Class D airspace area when the control tower is in operation, and as a Class E airspace area when the control tower is not in operation.

The amendments do not affect operations under SFAR 51-1. The amendments to SFAR 51-1 replace the term "Terminal Control Area" with "Class B airspace area" and change the references to sections in Part 91 to the sections effective August 18, 1990. Any modifications to operations under an SFAR or Part 93, Special Air Traffic Rules and Airport Traffic Patterns, will be proposed under separate rulemaking actions.

Vertical Limit of Class D Airspace Areas

A goal of airspace reclassification is to enhance safety. The FAA is of the opinion that the existing airspace designations of an ARSA, which has a ceiling of "up to and including" 4,000 feet above the surface, and an airport traffic area, which has a ceiling of "up to, but not including," 3,000 feet above the surface, has caused confusion, which does not enhance safety. To promote uniformity, the FAA in NPRM No. 89-28 proposed that the ceiling of Class C, Class D, and Class E airspace areas that extend upward from the surface be established at "up to, and including" 4,000 feet above the surface. Many of the comments on this proposal were opposed to this modification. As previously stated, the FAA has determined that the ceiling of Class D airspace areas will normally be designated at up to, and including, 2,500 feet above the surface of the airport expressed in MSL. To further enhance uniformity, the ceiling of Class E airspace areas that extend upward from the surface normally will also have a ceiling established at up to, and including, 2,500 feet above the surface of the airport expressed in MSL. A ceiling of 2,500 feet above the surface will provide adequate vertical airspace to protect traffic patterns. However, the FAA emphasizes that the ceiling of a Class D or a Class E airspace area will reflect the conditions of the particular airspace area. For example, if local conditions warrant, the ceiling could be designated at more than 2,500 feet above the surface (e.g., 2,700 or 3,000 feet above the surface). Conversely, some airports with limited volume of nonturbine-powered aircraft may have a lower vertical limit.

The decision to use 2,500 feet above the surface is based on recent FAA analysis of vertical airspace necessary to protect traffic patterns and a review of public comment to lower the ceiling of an airport traffic area. The FAA's analysis demonstrates that the 2000-foot vertical limit is insufficient since it often

does not protect traffic patterns for high performance aircraft.

Two-Way Radio Communications in and Lateral Dimensions of Class D Airspace Areas

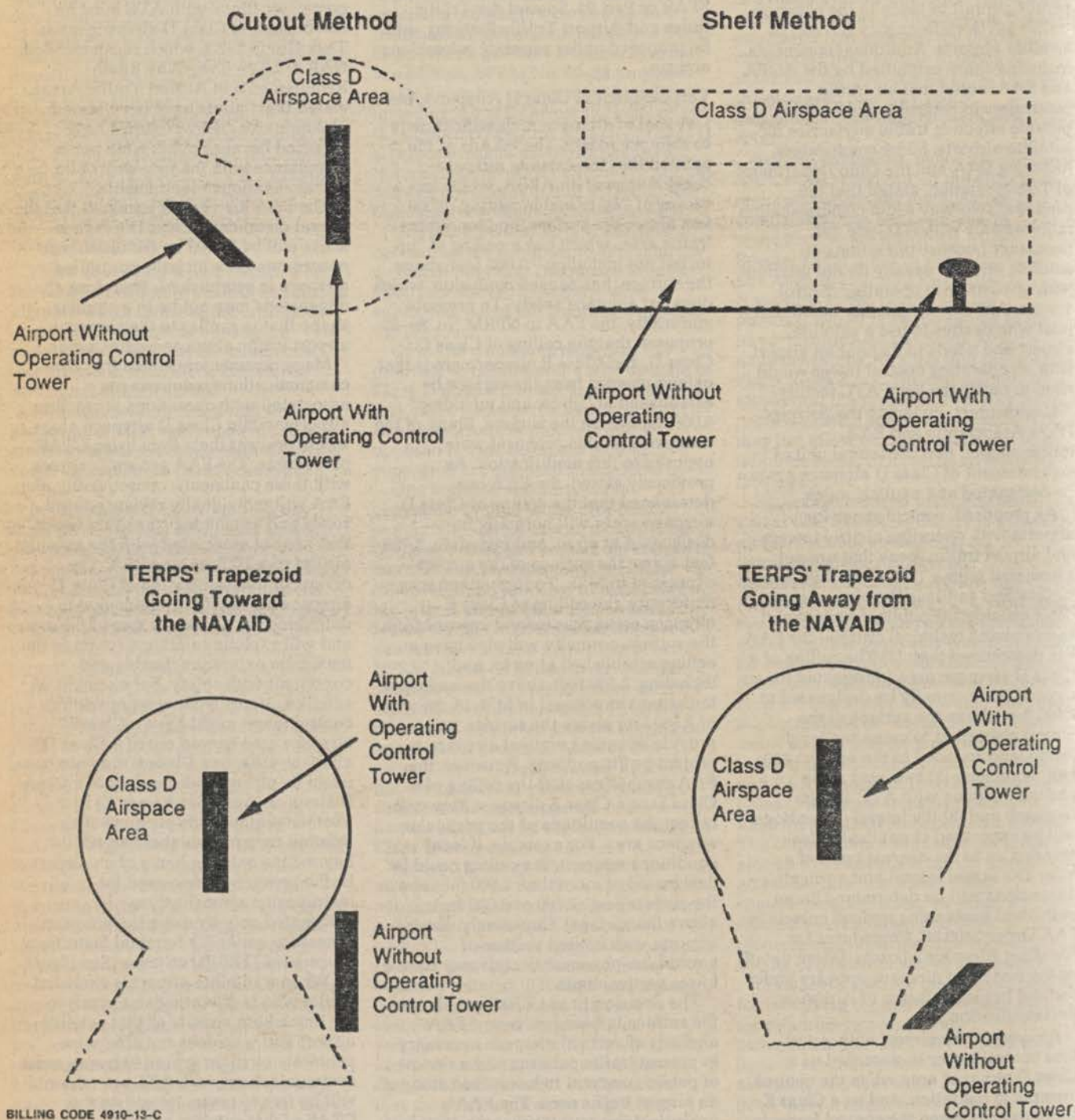
The FAA has determined that in order to meet safety standards, two-way radio communications with ATC must be established in Class D airspace areas. Task Group 1-2.3, which recommended NAR 1-2.3.2—Two-Way Radio Requirements in Airport Traffic Areas, stated that "pilots have been issued violations, or critical injuries have occurred because pilots were not in compliance with the two-way radio communications requirements."

The FAA also has determined that the lateral distance of Class D airspace areas will be based on the instrument procedures for which the controlled airspace is established. Therefore, the dimensions may not be in a circular shape that is similar to the current airport traffic areas or control zones.

Many commenters stated that the communications requirements associated with operations at satellite airports within Class D airspace areas would prevent them from using CTAF procedures. The FAA generally agrees with these comments; consequently, the FAA will individually review control zones and associated transition areas that are not associated with the primary airport of a TCA or an ARSA. The review of the designation of Class D airspace areas will be conducted to determine the necessary size of the area and will exclude satellite airports to the maximum extent practicable and consistent with safety. For example, a satellite airport without an operating control tower might have a Class E airspace area carved out of a Class D airspace area, or a Class E airspace area might be placed under a shelf of a Class D airspace area. (See Figure 1.) In another example, the portions of an existing control zone that extend beyond the existing limits of an airport traffic area (extension used for instrument approaches) may be designated only by using the airspace necessary under the terminal instrument procedures (TERPs) criteria. (See Figure 1.) When a satellite airport is excluded, a pilot who is operating an aircraft in the immediate vicinity of that satellite airport and who does not otherwise penetrate airspace where two-way radio communications with ATC are required will be free to communicate on the CTAF of that satellite airport.

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Figure 1. Examples of Satellite Airports Excluded from Class D Airspace Areas.



The FAA will be flexible in the review of the airspace dimensions. However, pilots who operate at satellite airports that underlie the instrument arrival and departure path of the airport in Class D airspace areas may, in some instances, be required to establish two-way radio communications with ATC to comply with safety precautions.

Class E Airspace

NPRM No. 89-28 proposed to reclassify as Class E airspace areas as follows: All Federal airways, the Continental Control Area, control areas associated with jet routes outside the Continental Control Area, additional control areas, control area extensions, control zones for airports without operating control towers, transition areas, and area low routes. The five comments submitted on this proposal neither supported nor opposed the proposal, but offered suggestions.

One commenter noted that the current names are descriptions of how the airspace area is to be used (i.e., transition areas, airways) and that under the proposal, airways would still be necessary. The SSA recommended the continued use of the term "control zone" for airspace extending upward from the surface that is independent of Class B, Class C, or Class D airspace areas. They also recommended that control zones should extend to the floor of overlying controlled airspace. One commenter recommended that the floor of Class E airspace areas that are now 1,200 feet above ground level (AGL) be raised to 1,500 or 2,200 feet AGL and noted that the floor of Class E airspace areas should not be below the minimum en route IFR altitude (MEA) in mountainous regions.

The FAA will adopt the classification of Class E airspace areas as proposed. This classification will not eliminate the requirement for Federal airways, which are specified in part 71. However, this classification will eliminate the designation of control zones. Control zones for airports without operating control towers are classified as Class E airspace areas designated for an airport that extend upward from the surface.

The FAA believes that the reclassification of control zones for airports without operating control towers as Class E airspace areas will not cause confusion. As noted earlier, such airspace areas will be depicted on visual aeronautical charts by a segmented magenta line. Under existing regulations, a control zone usually has a 5-statute mile radius and ascends to the base of the Continental Control Area. The FAA's review process, using the revised criteria in FAA Order 7400.2C,

will look at the dimensions of each control zone and associated transition areas. Each review will include a review of instrument approach procedures, as well as local terrain to determine the actual airspace needed to contain IFR operations.

The floor of Class E airspace areas, which do not extend upward from the surface, will remain the same as existing airspace areas (e.g., 700 feet AGL, 1,200 feet AGL, 1,500 feet AGL, 14,500 feet MSL). Any modifications to the floor of Class E airspace areas are beyond the scope of this rulemaking.

Class G Airspace

NPRM No. 89-28 proposed to reclassify airspace that is not otherwise designated as the Continental Control Area, a control area, a control zone, a terminal control area, a transition area, or SUA as Class G airspace areas. Of the six comments submitted, four comments opposed the proposal and two offered suggestions.

The four opposing comments, including EAA's comment, understood the Class G airspace areas to be airspace below 700 feet AGL.

The two comments that neither supported nor opposed the proposal included the comment from the ATA. The ATA recommended that Class G airspace areas be designated as Class F airspace areas.

The FAA has determined that all navigable airspace areas not otherwise designated as Class A, Class B, Class C, Class D, or Class E airspace areas or SUA are classified as Class G airspace areas. Since the proposal to replace the Continental Control Area with the U.S. control area in NPRM No. 89-2 was not adopted, the vertical limit of Class G airspace areas will vary (e.g., 700 feet AGL, 1,200 feet AGL, 1,500 feet AGL, 14,500 feet MSL). In addition, the flight visibility and distance from cloud requirements for operations under VFR proposed in NPRM No. 89-28 are modified to remain consistent with the existing requirements in §§ 91.155 and 103.23.

Class F airspace is omitted from the U.S. airspace classifications because this airspace, as adopted by ICAO, does not have a U.S. equivalent. Class G airspace, as adopted by ICAO, is the equivalent of U.S. uncontrolled airspace.

Additional Comments

Comments on issues affecting a specific class of airspace were also received. These comments with any modifications to the final rule are discussed below.

Some commenters, including AOPA, expressed apprehension that the FAA

may reclassify airspace in an arbitrary manner. Other commenters, including EAA and SSA, believed the FAA implied in NPRM No. 89-28 that the person who is delegated airspace authority could allow any airspace designations considered appropriate.

In NPRM No. 89-28 and in this final rule, the FAA does not suggest that any new airspace designations could be specified without following rulemaking procedures where required. Further review of airspace areas will be proposed in future FAA rulemaking actions.

Three commenters, including the Alaska Airmen's Association and SSA, noted that NPRM No. 89-28 proposed to define controlled airspace in FAR § 1.1 as airspace in which "all aircraft may be subject to ATC" rather than airspace in which "some or all aircraft may be subject to ATC." According to one commenter, because aircraft operating under VFR are not always subject to ATC in controlled airspace, especially Class E airspace, the current definition is more accurate.

The proposed definition of controlled airspace is adopted in essence but it has been modified to correspond with ICAO's definition of a controlled airspace. Subsequent to the publication of NPRM No. 89-28, ICAO modified its definition of controlled airspace to read as follows: "Controlled airspace. An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification. Note—Controlled airspace is a generic term which covers ATS (air traffic services) in airspace Classes A, B, C, D, and E." The proposed FAA definition in NPRM No. 89-28 read: "Controlled airspace means airspace designated as Class A, Class B, Class C, Class D, or Class E airspace in part 71 of this chapter and within which all aircraft may be subject to air traffic control."

While the commenter is essentially correct that all aircraft are not always subject to air traffic control, any aircraft may be subject to ATC if the pilot operates under IFR or if the pilot requests and receives air traffic services. The FAA believes that misunderstandings would be minimized with the adoption of the ICAO definition. The ICAO definition and the proposed definition are essentially synonymous; however, the FAA is confident the adoption of the ICAO definition is consistent with the objectives of airspace reclassification and that it is beneficial to have a

common international definition of controlled airspace.

Four commenters, including EAA and SSA, noted that NPRM No. 89-28 only permits Special VFR operations for the purposes of departing from or arriving at an airport. The commenters stated that such a restriction of Special VFR operations would affect pipeline patrol, aerial photography, law enforcement, agricultural, and other special types of operations. EAA also stated that the proposed limitation of 4,000 feet above the surface for Special VFR operations could prevent pilots from climbing to the top of a haze layer.

The FAA will continue to permit Special VFR operations for through flights as well as flights for arrival or departure. Because control zones will be eliminated under Airspace Reclassification, Special VFR operations are only permitted within the ceiling and lateral boundaries of the surface areas of the Class B, Class C, Class D, or Class E airspace designated for an airport. Because the proposal for a uniform ceiling for Class C, Class D, and Class E airspace areas at 4,000 feet above the surface is not adopted, the boundaries of the airspace area in which Special VFR operations are permitted will vary. For example, if a Class C airspace area has a ceiling designated at 4,500 feet MSL and a surface area designated within a 5-nautical mile radius from the airport, Special VFR operations are permitted within that 5-nautical mile radius up to and including 4,500 feet MSL.

One commenter, a flight instructor with a petition signed by additional flight instructors, stated that the language in the proposal on aerobatic flight is vague and could be interpreted to restrict aerobatic operations within existing transition areas and other less crowded airspace areas. The commenter was concerned that the proposed § 91.71(c) could affect spin training at flight schools.

Under this amendment, the term "control zone" will be eliminated. However, the FAA desires to continue restrictions that currently exist in the FAR on operations within control zones. These restrictions will now apply within the lateral boundaries of the surface areas of the Class B, Class C, Class D, or Class E airspace designated for an airport. For example, if a Class E airspace area is designated to extend upward from the surface with a 4.4-nautical mile radius from the airport and a ceiling of 2,600 feet MSL, aerobatic flight will not be permitted below 2,600 feet MSL within a 4.4-nautical mile radius of the airport.

Implementation of Airspace Reclassification

The implementation of the Airspace Reclassification final rule includes parallel reviews of certain existing airspace areas to meet the new airspace classifications. The outcome of the multi-phase review will be published in separate NPRMs. The reviews will focus on control zones, non-Federal control towers, transition areas, and offshore airspace. The FAA realizes that some of the reviews could be in areas with unique local conditions.

The FAA drafted changes to FAA Order 7400.2C, which focuses on existing control zones and transition areas. The changes to Order 7400.2C are considered independent of the Airspace Reclassification final rule, and involve the revised criteria to be used for the reviews. Because the changes to Order 7400.2C and the reviews occur before the effective date of the Airspace Reclassification final rule, the revised criteria are written in existing airspace terminology. Examples of the revised criteria include: (1) Converting the lateral unit of measurement from statute miles to nautical miles; (2) conforming existing control zones to be congruent with the lateral dimensions of the surface areas of existing TCAs or ARSAs; (3) redesignating control zones to contain intended operations (not necessarily in a circular configuration); (4) redesignating the vertical limit of control zones from the surface of the earth to a specified altitude (but not to the base of the Continental Control Area); (5) establishing a policy to exclude satellite airports from control zones to the maximum extent practicable, consistent with instrument procedures and safety; and (6) replacing control zone departure extensions with transition areas.

The FAA anticipates that many control zones and associated transition areas would require minor modification. For example, a control zone could be integrated with the associated TCA or ARSA (Class B or Class C airspace area) or a control zone could become either a Class D airspace area or a Class E airspace area that extends upward from the surface.

The reviews will include control zones where a significant change in the current airspace structure is expected. For example, a control zone that extends beyond the perimeter of the associated TCA or ARSA and could require modification of the associated TCA or ARSA (Class B or Class C airspace area). The reviews will also include transition areas not associated with control zones and offshore airspace.

Proposed changes that result from these reviews will be promulgated using normal rulemaking procedures.

The reviews could also result in the expansion of controlled airspace. These actions could affect airspace areas associated with non-Federal control towers. Any expansion of controlled airspace will be proposed in future NPRMs.

All necessary changes to the airspace structures are scheduled to be completed by September 16, 1993, the effective date of the Airspace Reclassification final rule.

Changes to the NPRM

This final rule includes several nonsubstantive editorial changes made to NPRM No. 89-28. Changes are also included in this final rule to certain FAR sections that were not included in NPRM No. 89-28 but require changes in terminology to be consistent with the amendments. Three additional subparts in part 93 are deleted because the rules will not be necessary under airspace reclassification. The sections and subparts, with an explanation of the changes made to them, follow.

SFAR 51-1

The reference to "Terminal Control Area (TCA)" in section 1 is replaced with "Class B airspace area." The reference to § 91.105(a) in section 2(a) is replaced with § 91.155(a). The reference to § 91.24(b) in section 2(b) is replaced with § 91.215(b). The phrase "meet the equipment requirements" in section 2(b) is replaced with "be equipped as." The reference to § 91.90(a) and § 91.90 in section 3 is replaced with § 91.131(a) and § 91.131.

SFAR 60

The references to "terminal control area" and "airport radar service area" in section 3a are replaced with "Class B airspace area" and "Class C airspace area." The phrase "terminal and en route airspace" in section 3a is replaced with "class of controlled airspace."

SFAR 62

The two references to "terminal control area" in section 1(a) are replaced with "Class B airspace area." The references to the "Tri-Area TCA" in section 2(24) and (25) are replaced with "Tri-Area Class B airspace area."

§ 45.22(a)(3)(i)

The phrase "the designated airport control zone of the takeoff airport, or within 5 miles of that airport if it has no designated control zone" is replaced with "the lateral boundaries of the

surface areas of Class B, Class C, Class D, or Class E airspace designated for the takeoff airport, or within 4.4 nautical miles of that airport if it is within Class G airspace."

§ 61.95

All references to "terminal control area" in the title and paragraphs (a), (a)(1), (a)(2), (a)(3), and (b) are replaced with "Class B airspace" or "Class B airspace area."

§ 61.193(b)(4)

Both references to a "terminal control area" are replaced with "Class B airspace area."

§ 61.195(d)(3)

Both references to a "terminal control area" are replaced with "Class B airspace area."

Part 75

This part is removed and reserved with all sections being transferred to a new subpart M in existing Part 71.

§ 91.126

This section is established to include the existing requirements in § 91.127 on operations on or in the vicinity of an airport without an operating control tower.

§ 91.905

The references to §§ 91.127, 91.129, 91.130, 91.131, and 91.135 are replaced with the titles to become effective September 16, 1993, and a reference is added to § 91.126.

§ 93.1(b)

The reference to § 93.113, which is to be deleted as of September 16, 1993, is deleted.

Subpart N, part 93

This subpart on the airport traffic area at the Sabre U.S. Army Heliport (Tennessee) is removed and reserved. On September 16, 1993, this airspace will become a Class D airspace area.

Subpart O, part 93

This subpart on the Navy airport traffic area at Jacksonville, Florida, is removed and reserved. On September 16, 1993, this airspace will become three separate but adjoining Class D airspace areas.

Subpart R, part 93

This subpart on the Special Air Traffic Rules at El Toro California, is removed and reserved. On September 16, 1993, this airspace will become a part of the El Toro Class C airspace area.

§ 135.205(b)

The reference to "uncontrolled airspace" is replaced with "Class G airspace." The reference to "control zones" is replaced with "within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport."

§ 139.323(a)

The reference to "terminal control area" is replaced with "Class B airspace area."

§ 171.9(e)(1) and (e)(2)

All references to "air traffic control areas" are replaced with "controlled airspace."

§ 171.29(d)(1) and (d)(2)

All references to "air traffic control areas" are replaced with "controlled airspace."

§ 171.159(e)(1) and (e)(2)

Both references to "air traffic control areas" are replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

§ 171.209(d)

Both references to "air traffic control areas" are replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

§ 171.323(i)

The reference to "air traffic control areas" is replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

Obsolete Dates

Obsolete dates have been removed from §§ 91.215 (b)(2), (b)(4), and (b)(5)(ii). Section 91.215(b)(5)(i)(A) is obsolete and is deleted. Section 91.215(b)(5)(i)(B) is incorporated into existing § 91.215(b)(5)(i).

Regulatory Evaluation Summary

This section summarizes the full regulatory evaluation prepared by the FAA that provides more detailed estimates of the economic consequences of this final rule regulatory action. This summary and the full evaluation quantify, to the extent practicable, estimated costs to the private sector, consumers, Federal, State and local governments, as well as anticipated benefits.

Executive Order 12291, dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if

potential benefits to society for each regulatory change outweigh potential costs. The order also requires the preparation of a Regulatory Impact Analysis of all major rules except those responding to emergency situations or other narrowly defined exigencies. A major rule is one that is likely to result in an annual effect on the economy of \$100 million or more, a major increase in consumer costs, a significant adverse effect on competition, or one that is highly controversial.

The FAA has determined that this rule is not major as defined in the executive order. Therefore, a full regulatory analysis, that includes the identification and evaluation of cost reducing alternatives to the final rule, has not been prepared. Instead, the agency has prepared a more concise document termed a regulatory evaluation that analyzes only this rule without identifying alternatives. In addition to a summary of the regulatory evaluation, this section also contains a final regulatory flexibility determination required by the 1980 Regulatory Flexibility Act (Pub. L. 96-354) and an International Trade Impact Assessment. If the reader desires more detailed economic information than this summary contains, then he/she should consult the full regulatory evaluation contained in the docket.

Benefit-Cost Analysis

The regulatory evaluation examines the costs and benefits of this final rule to reclassify U.S. airspace. This rule is intended to simplify airspace designations, achieve international commonality of airspace designations, standardize equipment requirements and associate appropriate pilot certification requirements as well as certain other requirements associated with each proposed airspace designation. These changes are based primarily on recommendations from a National Airspace Review (NAR) task group and will ultimately allow for increased safety and efficiency in the U.S. airspace and air traffic control system.

Costs

The FAA estimates the total incremental cost that will accrue from the implementation of this final rule to be \$1.9 million (discounted, in 1990 dollars). Virtually all cost, which is expected to be incurred by the FAA, will accrue from revisions to aeronautical charts, re-education of the pilot community, and revision of air traffic controller training courses. Each one of these factors is briefly discussed below:

1. Revisions to Aeronautical Charts

A significant cost impact associated with this rule will result from the requirement to change aeronautical charts. These modifications will be incorporated during the regular updating and printing of the charts. Therefore, all costs associated with printing aeronautical charts are assumed to be normal costs of doing business. However, because of dimension and symbol changes that will be needed, the plates used to print the charts will need to be changed, and this will affect most of the aeronautical charts printed.

The total cost of revisions to all charts is estimated by the National Ocean Service based on the summation of the costs of revising each class of the airspace. The total discounted cost is estimated to be \$1.2 million.

2. Revision of Air Traffic Training Courses

Manuals, textbooks, and other training materials used to educate FAA controllers will need to be updated to reflect the airspace reclassification. According to the FAA Aeronautical Center in Oklahoma City, lesson plans, visual aids, handouts, laboratory exercises, and tests will need to be revised.

The cost of these revisions is determined by multiplying the total revision time by the hourly cost of the course manager making the changes. The course managers are level GS-14 (step 5) employees with an average loaded annual salary of \$72,000. Assuming 2,080 hours per year, their average loaded hourly salary is \$35. The cost of the course changes is estimated to be \$43,000 (discounted). An additional cost of \$10,000 (discounted) will accrue as the result of a one-week seminar and associated travel. This seminar will be necessary to educate course managers about the airspace reclassification. The total cost that will accrue from this factor is estimated to be \$43,000 (discounted).

3. Re-education of the Pilot Community

Pilots who are presently certificated to operate in the U.S. airspace will need to become familiar with the airspace reclassification as the result of this rule. This task will be accomplished through a variety of publications, videotapes, and pilot meetings.

The FAA is considering the production of a videotape that will be provided as a public service to industry associations, such as AOPA, ALPA, and NBAA, to inform them of the airspace reclassification. This videotape could be shown at various association meetings

to help re-educate the pilot community. The FAA's Office of Public Affairs, estimates that the film will be 20 to 25 minutes long and could be produced at a cost of \$75,000 (discounted).

The FAA is also considering the publication of an advisory circular (AC) which will document the new airspace classifications. The AC will be mailed to each registered pilot. It is estimated that one man-week at a level GS-14 (Step 5) will be required to draft the AC and obtain approval in the sponsoring organization, and one GS-14 man-week will be required to obtain FAA approval of the AC. The cost associated with 2 man-weeks at a level GS-14 needed to prepare the AC is estimated to be \$2,500 (discounted). This cost was estimated using the average loaded hourly salary of a level GS-14 employee which is \$35.

After the AC is approved, it will be mailed to approximately 761,000 registered pilots. Assuming that the AC will be 10 pages long and the cost of reproduction is \$0.05 per page, the cost of reproduction will be \$346,000 (discounted). Assuming that the shipping and handling charge associated with each copy is \$0.29, the cost of shipping and handling is \$201,000 (discounted). The cost impact that will result for re-educating the pilot community was estimated by summing the cost of the videotape and the AC, described in the preceding paragraphs. This estimated cost impact is \$625,000 (discounted).

Benefits

This final rule is expected to generate benefits in the form of enhanced safety and operational efficiency to the aviation community. These benefits are briefly described, in qualitative terms, below:

1. Increased Safety Due to Better Understanding and Simplification

The FAA believes that the simplified classification in this rule will reduce airspace complexity and thereby enhance safety. This airspace reclassification mirrors the new ICAO airspace designations, except there will not be a U.S. Class F airspace.

This rule also will increase safety in the U.S. since foreign pilots operating aircraft in U.S. airspace will be familiar with the airspace designations and classification system.

Another simplification which is expected to help increase airspace safety is the change that will correlate the class of controlled airspace currently termed a control zone to the airspace of the surrounding area. Currently, several types of airspace are designated around an airport, which makes it difficult for pilots and controllers to determine how

the areas are classified and which requirements apply. After the reclassification, the terminology will be more explanatory.

The conversion of statute mile designations to nautical mile designations is intended to further simplify operations. Since the instruments on-board the aircraft are calibrated in nautical miles and aviation charts have representations in nautical miles, this change will eliminate the need for pilots to convert between nautical and statute miles. This simplification will help pilots and controllers to be better able to understand the airspace designations in part 71.

2. Reduced Minimum Distance from Cloud Requirement

This airspace reclassification will designate TCAs as Class B airspace areas. The VFR minimum distance from clouds requirement in this airspace will also change. Currently this distance is 500 feet below, 1,000 feet above, and 2,000 feet horizontal. In Class B airspace, the rule will require that the minimum distance from clouds be "clear of clouds." This change will afford VFR traffic increased opportunities to fly in Class B airspace in more types of weather than they currently have in a TCA. Furthermore, there will be reduced requests for deviation from ATC instruction to maintain cloud clearance. This action will not threaten safety since all aircraft operating in Class B airspace are provided with the appropriate separation.

3. Operation Of Ultralight Vehicles

This rule incorporates NAR task group 1-7.2 recommendations and changes part 103 to correspond to the new airspace designations found in part 71. There will be no decrease in safety because there is no change in the type of airspace in which ultralights are permitted to fly or operate.

Conclusion

Despite the fact that benefits are not quantifiable in monetary terms, the FAA, nonetheless, concludes that the benefits of this rule are expected to outweigh its expected costs.

International Trade Impact Assessment

Since this rule will not affect airspace outside the United States for which the United States is responsible, it is not expected to impose any new operating requirement in that airspace. As such, it will have no effect on the sale of foreign aviation products or services in the United States, nor will it affect the sale

of U. S. products or services in foreign countries.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by government regulations. The RFA requires agencies to review rules which may have "a significant cost impact on a substantial number of small entities." The small entities which could be potentially affected by the implementation of this notice are pilot schools.

Training materials used in the courses offered by the pilot schools will have to be modified to reflect the changes of the airspace reclassification. However, pilot schools will not incur any cost impact since the documents they use will be updated as a normal course of business. Thus, there will be no cost impact to those pilot schools classified as small entities. Therefore, this rule will not have a significant cost impact on a substantial number of small entities.

Federalism Implications

The amendments in this final rule will not have substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that these amendments will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-511), there are no requirements for information collection associated with this rule.

Conclusion

For reasons discussed in the preamble, and based on the findings in the Regulatory Evaluation Determination and the International Trade Impact Analysis, the FAA has determined that these amendments do not qualify as a major rule under Executive Order 12291. In addition, the FAA certifies that these amendments will not have a significant economic effect on a substantial number of small business entities under the criteria of the Regulatory Flexibility Act. These amendments are considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation of these amendments, including a Regulatory

Flexibility Determination and Trade Impact Analysis, has been placed in its entirety in the regulatory docket. A copy may be obtained by contacting the person identified under "FOR FURTHER INFORMATION CONTACT."

Cross Reference

To identify where existing regulations for part 75 are relocated in existing part 71, the following cross reference lists are provided:

Cross Reference Table

Old section	New section
75.1.....	71.601.
75.11.....	71.803.
75.13.....	71.605.
75.17.....	Deleted.
75.100.....	71.607.
75.400.....	71.609.

New Section	Old Section
71.601.....	75.1.
71.603.....	75.11.
71.605.....	75.13.
71.607.....	75.100.
71.609.....	75.400.

To identify where existing regulations for part 71 are relocated in the rule to be effective September 16, 1993, or if the regulations will be relocated in FAA Order 7400.9, the following cross reference lists are provided:

Cross Reference Table

Old section	New section or FAA order 7400.9
71.1.....	71.1.
71.3.....	71.73.
71.5.....	71.75.
71.6.....	71.77.
71.7.....	Deleted.
71.9.....	71.71.
71.11.....	Deleted.
71.12.....	71.41.
71.13.....	71.71.
71.14.....	71.51.
71.15.....	71.31.
71.17.....	71.5.
71.19.....	71.7.
71.101.....	Subpart E of FAA Order 7400.9.
71.103.....	Subpart E of FAA Order 7400.9.
71.105.....	Subpart E of FAA Order 7400.9.
71.107.....	Subpart E of FAA Order 7400.9.
71.109.....	Subpart E of FAA Order 7400.9.
71.121.....	71.79.
71.123.....	Subpart E of FAA Order 7400.9.
71.125.....	Subpart E of FAA Order 7400.9.
71.127.....	Subpart E of FAA Order 7400.9.
71.151.....	Subpart E of FAA Order 7400.9.
71.161.....	71.71 and Subpart E of FAA Order 7400.9.

Old section	New section or FAA order 7400.9
71.163.....	71.71 and Subpart E of FAA Order 7400.9.
71.165.....	Subpart E of FAA Order 7400.9.
71.171.....	Subpart D or E of FAA Order 7400.9.
71.181.....	Subpart E of FAA Order 7400.9.
71.193.....	71.33.
71.201.....	71.901.
71.203.....	Subpart H of FAA Order 7400.9.
71.207.....	Subpart H of FAA Order 7400.9.
71.209.....	Subpart H of FAA Order 7400.9.
71.211.....	Subpart H of FAA Order 7400.9.
71.213.....	Subpart H of FAA Order 7400.9.
71.215.....	Subpart H of FAA Order 7400.9.
71.301.....	Subpart E of FAA Order 7400.9.
71.401.....	Subpart B of FAA Order 7400.9.
71.501.....	Subpart C of FAA Order 7400.9.
71.601.....	Deleted.
71.603.....	Subpart A of FAA Order 7400.9.
71.605.....	Subpart A of FAA Order 7400.9.
71.607.....	Subpart A of FAA Order 7400.9.
71.609.....	Subpart A of FAA Order 7400.9.

New Section	Old Section
71.1.....	71.1.
71.5.....	71.17.
71.7.....	71.19.
71.9.....	New.
71.31.....	71.15.
71.33.....	71.193.
71.41.....	71.12.
71.51.....	71.14.
71.61.....	New.
71.71.....	71.9, 71.13, 71.161, 71.163.
71.73.....	71.3.
71.75.....	71.5.
71.77.....	71.6.
71.79.....	71.121.
71.901.....	71.201.

FAA Order 7400.9	Old Section
Subpart A.....	71.603.
Subpart A.....	71.605.
Subpart A.....	71.607.
Subpart A.....	71.609.
Subpart B.....	71.401.
Subpart C.....	71.501.
Subpart D or Subpart E.....	71.171.
Subpart E.....	71.101.
Subpart E.....	71.103.
Subpart E.....	71.105.
Subpart E.....	71.107.
Subpart E.....	71.109.
Subpart E.....	71.123.
Subpart E.....	71.125.
Subpart E.....	71.127.
Subpart E.....	71.151.
Subpart E.....	71.161.
Subpart E.....	71.163.
Subpart E.....	71.165.

FAA Order 7400.9	Old Section
Subpart E.....	71.181.
Subpart E.....	71.301.
Subpart H.....	71.203.
Subpart H.....	71.207.
Subpart H.....	71.209.
Subpart H.....	71.211.
Subpart H.....	71.213.
Subpart H.....	71.215.

List of Subjects**14 CFR Part 1**

Air safety, Air transportation,
Aviation safety, Safety, Transportation.

14 CFR Part 11

Administrative practice and
procedure, Reporting and recordkeeping
requirements.

14 CFR Part 45

Air safety, Air transportation,
Aviation safety, Safety, Transportation.

14 CFR Part 61

Air safety, Air transportation, Airmen,
Aviation safety, Pilots, Students, Safety,
Transportation.

14 CFR Part 65

Air safety, Air transportation, Airmen,
Airports, Aviation safety, Reporting and
recordkeeping requirements, Safety.

14 CFR Part 71

Airspace, Airways, Incorporation by
reference.

14 CFR Part 75

Airspace, Airways.

14 CFR Part 91

Air safety, Air traffic control, Air
transportation, Airmen, Airports,
Aviation safety, Reporting and
recordkeeping requirements.

14 CFR Part 93

Special air traffic rules.

14 CFR Part 101

Air safety, Air transportation,
Aircraft, Aviation safety, Reporting and
recordkeeping requirements.

14 CFR Part 103

Air safety, Air transportation,
Aircraft, Aviation safety, Recreation
and recreation areas.

14 CFR Part 105

Air safety, Air transportation,
Aircraft, Airports, Airspace, Aviation
safety, Recreation and recreation areas,
Reporting and recordkeeping
requirements.

14 CFR Part 121

Air carrier, Air safety, Air traffic
control, Air transportation, Aircraft,
Airmen, Aviation safety, Charter flights,
Reporting and recordkeeping
requirements, Safety, Transportation.

14 CFR Part 127

Air carrier, Air safety, Air
transportation, Aircraft, Airmen,
Aviation safety, Reporting and
recordkeeping requirements.

14 CFR Part 135

Air carrier, Air safety, Air traffic
control, Air transportation, Aircraft,
Airmen, Airspace, Aviation Safety.

14 CFR Part 137

Air safety, Agriculture, Aircraft,
Aviation safety.

14 CFR Part 139

Air carrier, Air safety, Air
transportation, Aircraft, Airports,
Aviation safety.

14 CFR Part 171

Air traffic control, Aircraft, Airports,
Airspace, Navigation, Reporting and
recordkeeping requirements.

The Rule

In consideration of the foregoing, the
Federal Aviation Administration
amends SFAR 51-1, SFAR 60, SFAR 62,
parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101,
103, 105, 121, 127, 135, 137, 139, and 171
of Federal Aviation Regulations (14 CFR
parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101,
103, 105, 121, 127, 135, 137, 139, and 171)
as follows:

PART 91—[AMENDED]

Part 91 is amended as follows:

SFAR No. 51-1—SPECIAL FLIGHT RULES IN THE VICINITY OF LOS ANGELES INTERNATIONAL AIRPORT

1. The authority citation for Special Federal
Aviation Regulation No. 51-1 is revised to
read as follows:

Authority: 49 U.S.C. app. 1303, 1348,
1354(a), 1421, and 1422; 49 U.S.C. 106(g).

2. Special Federal Aviation Regulation No.
51-1 is amended by revising section 1
introductory text, paragraphs 2(a) and 2(b) of
section 2, and section 3 to read as follows:

Section 1. Applicability: This rule
establishes a special operating area for
persons operating aircraft under visual flight
rules (VFR) in the following airspace of the
Los Angeles Class B airspace area designated
as the Los Angeles Special Flight Rules
Area: * * *

Section 2. * * *

a. The flight must be conducted under VFR
and only when operation may be conducted
in compliance with § 91.155(a).

b. The aircraft must be equipped as
specified in FAR 91.215(b) replying on Code

1201 prior to entering and while operating in
this area.

* * * * *

Section 3. Notwithstanding the provisions
of § 91.131(a), an air traffic control
authorization is not required in the Los
Angeles Special Flight Rules Area for
operations in compliance with section 2 of
this SFAR. All other provisions of § 91.131
apply to operate in the Special Flight Rules
Area.

SFAR NO. 60—AIR TRAFFIC CONTROL SYSTEM EMERGENCY OPERATION

3. The authority citation for SFAR No. 60 is
revised to read as follows:

Authority: 49 U.S.C. app. 1301(7), 1303,
1344, 1348, 1352 through 1355, 1401, 1421
through 1431, 1471, 1472, 1502, 1510, 1522, and
2121 through 2125; articles 12, 29, 31, and
32(a) of the Convention on International Civil
Aviation (61 stat. 1180); 42 U.S.C. 4321 *et seq.*;
E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970
Comp., p. 902; 49 U.S.C. 106(g).

4. Special Federal Aviation Regulation No.
60 is amended by revising paragraph (a) of
section 3 to read as follows:

* * * * *

3. * * *

(a) Restrict, prohibit, or permit VFR and/or
IFR operations at any airport, Class B
airspace area, Class C airspace area, or other
class of controlled airspace.

* * * * *

SFAR NO. 62—SUSPENSION OF CERTAIN AIRCRAFT OPERATIONS FROM THE TRANSPONDER WITH AUTOMATIC PRESSURE ALTITUDE REPORTING CAPABILITY REQUIREMENT

5. The authority citation for SFAR No. 62 is
revised to read as follows:

Authority: 49 U.S.C. app. 1301(7), 1303,
1344, 1348, 1352 through 1355, 1401, 1421
through 1431, 1471, 1472, 1502, 1510, 1522, and
2121 through 2125; articles 12, 29, 31, and
32(a) of the Convention on International Civil
Aviation (61 stat. 1180); 42 U.S.C. 4321 *et seq.*;
E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970
Comp., p. 902; 49 U.S.C. 106(g).

6. Special Federal Aviation Regulation No.
62 is amended by revising paragraph (a) of
section 1 and introductory text of both
paragraphs (24) and (25) of section 2 to read
as follows:

Section 1. * * *

(a) The airspace within 30 nautical miles of
a Class B airspace area primary airport, from
the surface upward to 10,000 feet MSL,
excluding the airspace designated as a Class
B airspace area is referred to as the Mode C
veil.

* * * * *

Section 2. * * *

* * * * *

(24) Effective until the establishment of the
Washington Tri-Area Class B airspace area
or December 30, 1993, whichever occurs first:
* * *

(25) Effective upon the establishment of the
Washington Tri-Area Class B airspace area:
* * *

* * * * *

PART 1—DEFINITIONS AND ABBREVIATIONS

7. The authority citation for part 1 is revised to read as follows:

Authority: 49 U.S.C. app. 1347, 1348, 1354(a), 1357(d)(2), 1372, 1421 through 1430, 1432, 1442, 1443, 1472, 1510, 1522, 1652(e), 1655(c), 1657(f); 49 U.S.C. 106(g).

8. Section 1.1 is amended by removing the definition of "airport traffic area," revising the definition of "controlled airspace," and adding the definitions of "Special VFR conditions" and "Special VFR operations" in alphabetical order to read as follows:

§ 1.1 General definitions.

Controlled airspace means an airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

Note—Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E airspace.

Special VFR conditions mean meteorological conditions that are less than those required for basic VFR flight in controlled airspace and in which some aircraft are permitted flight under visual flight rules.

Special VFR operations means aircraft operating in accordance with clearances within controlled airspace in meteorological conditions less than the basic VFR weather minima. Such operations must be requested by the pilot and approved by ATC.

PART 11—GENERAL RULEMAKING PROCEDURES

9. The authority citation for part 11 is revised to read as follows:

Authority: 49 U.S.C. app. 1341(a), 1343(d), 1348, 1354(a), 1401 through 1405, 1421 through 1431, 1481, 1502; 49 U.S.C. 106(g).

10. Section 11.61 is amended by revising paragraphs (a)(1) and (c) to read as follows:

§ 11.61 Scope.

(a) * * *

(1) Designations of controlled airspace under part 71 of this chapter;

(c) For the purposes of this subpart, "Director" means the Executive Director of System Operations, the Associate Administrator for Air Traffic or the Director, Air Traffic Rules and Procedures Service, or any person to

whom the Director has delegated authority in the matter concerned.

PART 45—IDENTIFICATION AND REGISTRATION MARKING

11. The authority citation for part 45 is revised to read as follows:

Authority: 49 U.S.C. app. 1348, 1354, 1401, 1402, 1421, 1423, 1522, 1655(c).

12. Section 45.22 is amended by revising paragraph (a)(3)(i) to read as follows:

§ 45.22 Exhibition, antique, and other aircraft: Special rules.

(a) * * *

(3) * * *

(i) It is operated with the prior approval of the Flight Standards District Office, in the case of a flight within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for the takeoff airport, or within 4.4 nautical miles of that airport if it is within Class G airspace; or

PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS

13. The authority citation for part 61 continues to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355, 1421, 1422, and 1427; 49 U.S.C. 106(g).

14. Section 61.95, paragraph (a) and (b) introductory text are revised to read as follows:

§ 61.95 Operations in Class B airspace and at airports located within Class B airspace.

(a) A student pilot may not operate an aircraft on a solo flight in Class B airspace unless—

(1) The pilot has received both ground and flight instruction from an authorized instructor on that Class B airspace area and the flight instruction was received in the specific Class B airspace area for which solo flight is authorized;

(2) The logbook of that pilot has been endorsed within the preceding 90 days for conducting solo flight in that Class B airspace area by the instructor who gave the flight training; and

(3) The logbook endorsement specifies that the pilot has received the required ground and flight instruction and has been found competent to conduct solo flight in that specific Class B airspace area.

(b) Pursuant to § 91.131(b), a student pilot may not operate an aircraft on a solo flight to, from, or at an airport located within Class B airspace unless—

15. Section 61.193 is amended by revising paragraph (b)(4) to read as follows:

§ 61.193 Flight instructor authorizations.

(b) * * *

(4) In accordance with § 61.95, the logbook of a student pilot the flight instructor has instructed authorizing solo flights in a Class B airspace area or at an airport within a Class B airspace area;

16. Section 61.195 is amended by revising paragraph (d)(3) to read as follows:

§ 61.195 Flight instructor limitations.

(d) * * *

(3) For solo flight in a Class B airspace area or at an airport within a Class B airspace area unless the flight instructor has given that student ground and flight instruction and has found that student prepared and competent to conduct the operations authorized.

PART 65—CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS

17. The authority citation for part 65 is revised to read as follows:

Authority: 49 U.S.C. App. 1354(a), 1355, 1421, 1422, and 1427; 49 U.S.C. 106(g).

18. Section 65.37 is amended by revising paragraphs (f) introductory text and (f)(2) to read as follows:

§ 65.37 Skill requirements: Operating positions.

(f) Each of the following procedures that is applicable to that operating position and is required by the person performing the examination:

(2) The terrain features, visual checkpoints, and obstructions within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for the airport.

PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, REPORTING POINTS, JET ROUTES, AND AREA HIGH ROUTES

19. The heading for part 71 is revised as set forth above.

19A. The authority citation for part 71 is revised to read as follows:

Authority: 49 U.S.C. app. 1348(a), 1354(a), 1510; E.O. 10854, 24 FR 9585, 3 CFR, 1959-1963 Comp., p. 389; 49 U.S.C. 106(g); 14 CFR 11.69.

20. Section 71.1 is revised to read as follows:

§ 71.1 Applicability.

The complete listing for all jet routes and area high routes can be found in FAA Order 7400.7, Compilation of Regulations, which was last published as of April 30, 1991, and effective November 1, 1991. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The approval to incorporate by reference FAA Order 7400.7 is effective as of December 17, 1991 through September 15, 1993. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, (202) 267-3484. Copies may be inspected in Docket Number 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, room 915G, 800 Independence Avenue, SW., Washington, DC 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, NW., room 8401, Washington, DC. This section is effective as of December 17, 1991, through September 15, 1993.

* * *

21. Section 71.11 is revised to read as follows:

§ 71.11 Control zone.

The control zones listed in subpart F of FAA Order 7400.7 (incorporated by reference, see § 71.1) consist of controlled airspace which, unless otherwise specified, extends upward from the surface of the earth and terminates at the base of the continental control area. Unless otherwise specified, control zones that do not underlie the continental control area have no upper limit. A control zone may include one or more airports and is normally a circular area with extensions as necessary to include instrument approach paths.

22. Section 71.19 is revised to read as follows:

§ 71.19 Bearings; radials; miles.

All bearings and radials in this part are true and are applied from point of origin and all mileages in this part are stated as nautical miles.

23. Subpart M consisting of § 71.601-71.609, is added to read as follows:

Subpart M—Jet Routes and Area High Routes

Sec.

71.601 Applicability.

71.603 Jet routes.

71.605 Area Routes above 18,000 feet MSL.

71.607 Jet route descriptions.

71.609 Area high route descriptions

§ 71.601 Applicability.

The routes described in § 71.607 between high altitude navigational aids or intersections of their signals, are designated as jet routes along which aircraft may be operated between 18,000 feet MSL and flight level 450. The routes described in § 71.609 are designated as area high routes.

§ 71.603 Jet routes.

Each jet route designated in § 71.607 consists of a direct course for navigating between 18,000 feet MSL and flight level 450, inclusive, between the navigational aids and intersections specified for that route.

§ 71.605 Area routes above 18,000 feet MSL.

Each area route designated in § 71.609 consists of a direct course for navigating aircraft at altitudes between 18,000 feet MSL and flight level 450, inclusive, between the waypoints specified for that route.

§ 71.607 Jet route descriptions.

Each jet route description can be found in part 75 of FAA Order 7400.7 (incorporated by reference, see § 71.1).

§ 71.609 Area high route descriptions.

Each area route description can be found in part 75 of FAA Order 7400.7 (incorporated by reference, see § 71.1).

24. Part 71 is revised to read as follows: (Effective September 16, 1993)

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

Subpart A—General; Class A Airspace

Sec.

71.1 Airspace classification.

71.3 [Reserved]

71.5 Reporting points.

71.7 Bearings, radials, and mileages.

71.9 Overlapping airspace designations.

71.31 Class A airspace.

71.33 Class A airspace areas.

Subpart B—Class B Airspace

Sec.

71.41 Class B airspace.

Subpart C—Class C Airspace

Sec.

71.51 Class C airspace.

Subpart D—Class D Airspace

Sec.

71.61 Class D airspace.

Subpart E—Class E Airspace

Sec.

71.71 Class E airspace.

71.73 Classification of Federal airways.

71.75 Extent of Federal airways.

71.77 Extent of area low routes.

71.79 Designation of VOR Federal airways.

Subpart F—[Reserved]

Subpart G—[Reserved]

Subpart H—Reporting Points

Sec.

71.901 Applicability.

Authority: 49 U.S.C. App. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. app. 106(g) 14 CFR 11.69.

Subpart A—General; Class A Airspace

§ 71.1 Airspace classification.

The complete listing of these airspace designations can be found in FAA Order 7400.9, Airspace Reclassification, which is effective September 16, 1993. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The approval to incorporate by reference FAA Order 7400.9 is effective as of September 16, 1993, through September 15, 1994. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591 (202) 267-3484. Copies may be inspected in Docket No. 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, room 915G, 800 Independence Avenue, SW., Washington, DC 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, NW., room 8401, Washington, D.C.

(a) The airspace assignments described in this subpart are designated as Class A airspace areas.

(b) The airspace assignments described in subpart B are designated as Class B airspace areas.

(c) The airspace assignments described in subpart C are designated as Class C airspace areas.

(d) The airspace assignments described in subpart D are designated as Class D airspace areas.

(e) The airspace assignments described in subpart E are designated as Class E airspace areas.

(f) Airspace not assigned in subpart A, B, C, D, E, or H of this part is uncontrolled airspace and is designated as Class G airspace.

§ 71.3 [Reserved]

§ 71.5 Reporting points.

The reporting points listed in subpart H of FAA Order 7400.9 (incorporated by reference, see § 71.1) consist of geographic locations at which the position of an aircraft must be reported in accordance with part 91 of this chapter.

§ 71.7 Bearings, radials, and mileages.

All bearings and radials in this part are true and are applied from point of origin and all mileages in this part are stated as nautical miles.

§ 71.9 Overlapping airspace designations.

(a) When overlapping airspace designations apply to the same airspace, the operating rules associated with the more restrictive airspace designation apply.

(b) For the purpose of this section—

(1) Class A airspace is more restrictive than Class B, Class C, Class D, Class E, or Class G airspace;

(2) Class B airspace is more restrictive than Class C, Class D, Class E, or Class G airspace;

(3) Class C airspace is more restrictive than Class D, Class E, or Class G airspace;

(4) Class D airspace is more restrictive than Class E or Class G airspace; and

(5) Class E is more restrictive than Class G airspace.

§ 71.31 Class A airspace.

The airspace descriptions contained in § 71.33 and the routes contained in subpart A of FAA Order 7400.9 (incorporated by reference, see § 71.1) are designated as Class A airspace within which all pilots and aircraft are subject to the rating requirements, operating rules, and equipment requirements of Part 91 of this chapter.

§ 71.33 Class A airspace areas.

(a) That airspace of the United States, including that airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States, from 18,000 feet MSL to and including FL600 excluding the states of Alaska and

Hawaii, Santa Barbara Island, Farallon Island, and the airspace south of latitude 25°04'00" North.

(b) That airspace of the State of Alaska, including that airspace overlying the waters within 12 nautical miles of the coast, from 18,000 feet MSL to and including FL600 but not including the airspace less than 1,500 feet above the surface of the earth and the Alaska Peninsula west of longitude 160°00'00" West.

Subpart B—Class B Airspace

§ 71.41 Class B airspace.

The Class B airspace areas listed in subpart B of FAA Order 7400.9 (incorporated by reference, see § 71.1) consist of specified airspace within which all aircraft operators are subject to the minimum pilot qualification requirements, operating rules, and aircraft equipment requirements of part 91 of this chapter. Each Class B airspace area designated for an airport in subpart B of FAA Order 7400.9 (incorporated by reference, see § 71.1) contains at least one primary airport around which the airspace is designated.

Subpart C Class C Airspace

§ 71.51 Class C airspace.

The Class C airspace areas listed in subpart C of FAA Order 7400.9 (incorporated by reference, see § 71.1) consist of specified airspace within which all aircraft operators are subject to operating rules and equipment requirements specified in part 91 of this chapter. Each Class C airspace area designated for an airport in subpart C of FAA Order 7400.9 (incorporated by reference, see § 71.1) contains at least one primary airport around which the airspace is designated.

Subpart D—Class D Airspace

§ 71.61 Class D airspace.

The Class D airspace areas listed in subpart D of FAA Order 7400.9 (incorporated by reference, see § 71.1) consist of specified airspace within which all aircraft operators are subject to operating rules and equipment requirements specified in part 91 of this chapter. Each Class D airspace area designated for an airport in subpart D of FAA Order 7400.9 (incorporated by reference, see § 71.1) contains at least one primary airport around which the airspace is designated.

Subpart E—Class E Airspace

71.71 Class E airspace.

Class E Airspace consists of:

(a) The airspace of the United States, including that airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous states and Alaska, extending upward from 14,500 feet MSL up to, but not including 18,000 feet MSL, and excluding—

(1) The Alaska peninsula west of longitude 160°00'00" W.;

(2) The airspace below 1,500 feet above the surface of the earth; and

(3) Prohibited and restricted areas, other than restricted areas listed in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1).

(b) The airspace areas designated for an airport in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1) within which all aircraft operators are subject to the operating rules specified in part 91 of this chapter.

(c) The airspace areas listed as domestic airspace areas in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1) which extend upward from 700 feet or more above the surface of the earth when designated in conjunction with an airport for which an approved instrument approach procedure has been prescribed, or from 1,200 feet or more above the surface of the earth when designated in conjunction with segments of airways or routes. When such areas are designated in conjunction with airways or routes, the extent of such designation has the lateral extent identical to that of a Federal airway and extends upward from 1,200 feet or higher unless otherwise specified.

(d) The Federal airways and area low routes described and listed in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1).

(e) The airspace areas listed as offshore airspace areas in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1) which are designated in international airspace within areas of domestic radio navigational signal or ATC radar coverage, and within which domestic ATC procedures are applied. When designated in conjunction with a route, the extent of such designation is as follows:

(1) Unless otherwise specified, the airspace centered on each jet route segment listed in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1) has a vertical extent identical to that of a jet route and a lateral extent identical to that of a Federal airway. Unless otherwise specified, the place names appearing in the descriptions indicate VOR or VORTAC facilities identified by those names.

(2) Unless otherwise specified, each airspace area has a lateral extent identical to that of a Federal airway and extends upward from 1,200 feet above the surface of the earth.

§ 71.73 Classification of Federal airways.

Federal airways are classified as follows:

- (a) Colored Federal airways:
 - (1) Green Federal airways.
 - (2) Amber Federal airways.
 - (3) Red Federal airways.
 - (4) Blue Federal airways.
- (b) VOR Federal airways.

§ 71.75 Extent of Federal airways.

(a) Each Federal airway is based on a center line that extends from one navigational aid or intersection to another navigational aid (or through several navigational aids or intersections) specified for that airway.

(b) Unless otherwise specified:

(1) Each Federal airway includes the airspace within parallel boundary lines 4 miles each side of the center line. Where an airway changes direction, it includes that airspace enclosed by extending the boundary lines of the airway segments until they meet.

(2) Where the changeover point for an airway segment is more than 51 miles from either of the navigational aids defining that segment, and—

(i) The changeover point is midway between the navigational aids, the airway includes the airspace between lines diverging at angles of 4.5° from the

center line at each navigational aid and extending until they intersect opposite the changeover point; or

(i) The changeover point is not midway between the navigational aids, the airway includes the airspace between lines diverging at angles of 4.5° from the center line at the navigational aid more distant from the changeover point, and extending until they intersect with the bisector of the angle of the center lines at the changeover point; and between lines connecting these points of intersection and the navigational aid nearer to the changeover point.

(3) Where an airway terminates at a point or intersection more than 51 miles from the closest associated navigational aid, it includes the additional airspace within lines diverging at angles of 4.5° from the center line extending from the associated navigational aid to a line perpendicular to the center line at the termination point.

(4) Where an airway terminates, it includes the airspace within a circle centered at the specified navigational aid or intersection having a diameter equal to the airway width at that point. However, an airway does not extend into an oceanic control area.

(c) Unless otherwise specified—

(1) Each Federal airway includes that airspace extending upward from 1,200 feet above the surface of the earth to, but not including, 18,000 feet MSL, except that Federal airways for Hawaii have no upper limits. Variations of the lower limits of an airway are expressed in digits representing hundreds of feet

above the surface or MSL and, unless otherwise specified, apply to the segment of an airway between adjoining navigational aids or intersections; and

(2) The airspace of a Federal airway, within the lateral limits of a Class E airspace area with a lower floor, has a floor coincident with the floor of that area.

(d) A Federal airway does not include the airspace of a prohibited area.

§ 71.77 Extent of area low routes.

(a) Each area low route is based on a center line that extends from one waypoint to another waypoint (or through several waypoints) specified for that area low route. An area low route does not include the airspace of a prohibited area. All mileages specified in connection with area low routes are nautical miles.

(b) Unless otherwise specified in subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1), the following apply:

(1) Except as provided in paragraph (2) of this section, each area low route includes, and is limited to, that airspace within parallel boundary lines 4 or more miles on each side of the route center line as described in the middle column of the following table, plus that additional airspace outside those parallel lines and within lines drawn outward from those parallel lines at angles of 3.25°, beginning at the distance from the tangent point specified in the right-hand column of the following table:

Miles from reference facility point to tangent point	Miles from center line to parallel lines	Miles from tangent along parallel line to vertices of 3.25° angles
Less than 17.....	4	51
17 to, but not including 27.....	4	50
27 to, but not including 33.....	4	49
33 to, but not including 38.....	4	48
38 to, but not including 43.....	4	47
43 to, but not including 47.....	4	46
47 to, but not including 51.....	4	45
51 to, but not including 55.....	4	44
55 to, but not including 58.....	4	43
58 to, but not including 61.....	4	42
61 to, but not including 63.....	4	41
63 to, but not including 66.....	4	40
66 to, but not including 68.....	4	39
68 to, but not including 70.....	4	38
70 to, but not including 72.....	4	37
72 to, but not including 74.....	4	36
74 to, but not including 76.....	4	35
76 to, but not including 78.....	4	34
78 to, but not including 79.....	4	33
79 to, but not including 81.....	4	32
81 to, but not including 83.....	4	31
83 to, but not including 84.....	4	30
84 to, but not including 86.....	4	29
86 to, but not including 87.....	4	28
87 to, but not including 88.....	4	27
88 to, but not including 89.....	4	26
89 to, but not including 91.....	4	25
91 to, but not including 92.....	4	24

Miles from reference facility point to tangent point	Miles from center line to parallel lines	Miles from tangent along parallel line to vertices of 3.25° angles
92 to, but not including 93	4	23
93 to, but not including 94	4	22
94 to, but not including 95	4	21
95 to, but not including 96	4	19
96 to, but not including 97	4	18
97 to, but not including 98	4	17
98 to, but not including 99	4	15
99 to, but not including 100	4	13
100 to, but not including 101	4	11
101 to, but not including 102	4	8
102 to, but not including 105	4	0 (i.e., at tangent point).
105 to, but not including 115	4.25	0 (i.e., at tangent point).
115 to, but not including 125	4.50	0 (i.e., at tangent point).
125 to, but not including 135	4.75	0 (i.e., at tangent point).
135 to, but not including 145	5.00	0 (i.e., at tangent point).
145 to, but not including 150	5.25	0 (i.e., at tangent point).

(2) Each area low route, whose center line is at least 2 miles, and not more than 3 miles from the reference facility, includes, in addition to the airspace specified in subparagraph (1) of this paragraph, that airspace on the reference facility side of the center line that is within lines connecting the point that is 4.9 miles from the tangent point on a perpendicular line from the center line through the reference facility, thence to the edges of the boundary lines described in paragraph (b)(1) of this section, intersecting those boundary lines at angles of 5.15°.

(3) Where an area low route changes direction, it includes that airspace enclosed by extending the boundary lines of the route segments until they meet.

(4) Where the widths of adjoining route segments are unequal, the following apply:

(i) If the tangent point of the narrower segment is on the route center line, the width of the narrower segment includes that additional airspace within lines from the lateral extremity of the wider segment where the route segments join, thence toward the tangent point of the narrower route segment, until intersecting the boundary of the narrower segment.

(ii) If the tangent point of the narrower segment is on the route center line extended, the width of the narrower segment includes that additional airspace within lines from the lateral extremity of the wider segment where the route segments join, thence toward the tangent point until reaching the point where the narrower segment terminates or changes direction, or until intersecting the boundary of the narrower segment.

(5) Where an area low route terminates, it includes that airspace within a circle whose center is the terminating waypoint, and whose

diameter is equal to the route segment width at that waypoint, except that an area low route does not extend into an oceanic control area.

(6) Each area low route includes that airspace extending upward from 1,200 feet above the surface of the earth to, but not including, 18,000 feet MSL, except that area low routes for Hawaii have no upper limits. Variations of the lower limits of an area low route are expressed in digits representing hundreds of feet above the surface or MSL and, unless otherwise specified, apply to the route segment between adjoining waypoints used in the description of the route.

(7) The airspace of an area low route within the lateral limits of a 700- or 1,200-foot above the surface Class E airspace area has a floor coincident with the floor of that area.

§ 71.79 Designation of VOR Federal airways.

Unless otherwise specified the place names appearing in the descriptions of airspace areas in Subpart E of FAA Order 7400.9 (incorporated by reference, see § 71.1) designated as VOR Federal airways indicate VOR or VORTAC navigational facilities identified by those names.

Subpart F—[Reserved]

Subpart G—[Reserved]

Subpart H—Reporting Points

§ 71.901 Applicability.

Unless otherwise designated:

(a) Each reporting point listed in Subpart H of FAA Order 7400.9 (incorporated by reference, see § 71.1) applies to all directions of flight. In any case where a geographic location is designated as a reporting point for less than all airways passing through that

point, or for a particular direction of flight along an airway only, it is so indicated by including the airways or direction of flight in the designation of geographical location.

(b) Place names appearing in the reporting point descriptions indicate VOR or VORTAC facilities identified by those names.

PART 75—ESTABLISHMENT OF JET ROUTES AND AREA HIGH ROUTES

25. The part 75 is removed and reserved.

PART 91—GENERAL OPERATING AND FLIGHT RULES

26. The authority citation for part 91 is revised to read as follows:

Authority: 49 U.S.C. app. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502, 1510, 1522, and 2121 through 2125; articles 12, 29, 31, and 32(a) of the Convention on International Civil Aviation (61 stat. 1180); 42 U.S.C. 4321 *et seq.*; E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970 Comp., p. 902; 49 U.S.C. 106(g).

27. Section 91.117 is amended by revising paragraphs (a), (b), and (c) to read as follows:

§ 91.117 Aircraft speed.

(a) Unless otherwise authorized by the Administrator (or by ATC in the case of operations in Class A or Class B airspace), no person may operate an aircraft below 10,000 feet MSL at an indicated airspeed of more than 250 knots (288 mph).

(b) Unless otherwise authorized or required by ATC, no person may operate an aircraft at or below 2,500 feet above the surface within 4 nautical miles of the primary airport of a Class B, Class C, or Class D airspace area at an indicated airspeed of more than 200 knots (230 mph.).

(c) No person may operate an aircraft in the airspace underlying a Class B airspace area designated for an airport or in a VFR corridor designated through such a Class B airspace area, at an indicated airspeed of more than 200 knots (230 mph).

28. Section 91.123 is amended by revising paragraph (a) to read as follows:

§ 91.123 Compliance with ATC clearances and instructions.

(a) When an ATC clearance has been obtained, a pilot in command may not deviate from that clearance, except in an emergency, unless that pilot obtains an amended clearance. However, except in Class A airspace, this paragraph does not prohibit that pilot from canceling an IFR flight plan if the operation is being conducted in VFR weather conditions. When a pilot is uncertain of an ATC clearance, that pilot must immediately request clarification from ATC.

29. Section 91.126 is added to read as follows:

§ 91.126 Operating on or in the vicinity of an airport in Class G airspace.

(a) *General.* Unless otherwise authorized or required, each person operating an aircraft on or in the vicinity of an airport in a Class G airspace area must comply with the requirements of this section.

(b) *Direction of turns.* When approaching to land at an airport in a Class G airspace area—

(1) Each pilot of an airplane must make all turns of that airplane to the left unless the airport displays approved light signals or visual markings indicating that turns should be made to the right, in which case the pilot must make all turns to the right; and

(2) Each pilot of a helicopter must avoid the flow of fixed-wing aircraft.

(c) *Flap settings.* Except when necessary for training or certification, the pilot in command of a civil turbojet-powered aircraft must use, as a final flap setting, the minimum certificated landing flap setting set forth in the approved performance information in the Airplane Flight Manual for the applicable conditions. However, each pilot in command has the final authority and responsibility for the safe operation of the pilot's airplane, and may use a different flap setting for that airplane if the pilot determines that it is necessary in the interest of safety.

30. Section 91.127 is revised to read as follows:

§ 91.127 Operating on or in the vicinity of an airport in Class E airspace.

(a) Unless otherwise required by part 93 of this chapter or unless otherwise authorized or required by the ATC facility having jurisdiction over the Class E airspace area, each person operating an aircraft on or in the vicinity of an airport in a Class E airspace area must comply with the requirements of § 91.126.

(b) *Departures.* Each pilot of an aircraft must comply with any traffic patterns established for that airport in part 93 of this chapter.

31. Section 91.129 is revised to read as follows:

§ 91.129 Operations in Class D airspace.

(a) *General.* Unless otherwise authorized or required by the ATC facility having jurisdiction over the Class D airspace area, each person operating an aircraft in Class D airspace must comply with the applicable provisions of this section. In addition, each person must comply with §§ 91.126 and 91.127. For the purpose of this section, the primary airport is the airport for which the Class D airspace area is designated. A satellite airport is any other airport within the Class D airspace area.

(b) *Deviations.* An operator may deviate from any provision of this section under the provisions of an ATC authorization issued by the ATC facility having jurisdiction over the airspace concerned. ATC may authorize a deviation on a continuing basis or for an individual flight, as appropriate.

(c) *Communications.* Each person operating an aircraft in Class D airspace must meet the following two-way radio communications requirements:

(1) *Arrival or through flight.* Each person must establish two-way radio communications with the ATC facility (including foreign ATC in the case of foreign airspace designated in the United States) providing air traffic services prior to entering that airspace and thereafter maintain those communications while within that airspace.

(2) *Departing flight.* Each person—

(i) From the primary airport or satellite airport with an operating control tower must establish and maintain two-way radio communications with the control tower, and thereafter as instructed by ATC while operating in the Class D airspace area; or

(ii) From a satellite airport without an operating control tower, must establish and maintain two-way radio communications with the ATC facility having jurisdiction over the Class D

airspace area as soon as practicable after departing.

(d) *Communications failure.* Each person who operates an aircraft in a Class D airspace area must maintain two-way radio communications with the ATC facility having jurisdiction over that area.

(1) If the aircraft radio fails in flight under IFR, the pilot must comply with § 91.185 of the part.

(2) If the aircraft radio fails in flight under VFR, the pilot in command may operate that aircraft and land if—

(i) Weather conditions are at or above basic VFR weather minimums;

(ii) Visual contact with the tower is maintained; and

(iii) A clearance to land is received.

(e) *Minimum altitudes.* Each pilot of a large or turbine-powered airplane must—

(1) Unless otherwise required by the applicable distance from cloud criteria, enter the traffic pattern at an altitude of at least 1,500 feet above the elevation of the airport and maintain at least 1,500 feet until further descent is required for a safe landing;

(2) When approaching to land on a runway served by an instrument landing system (ILS), if the airplane is ILS-equipped, fly that airplane at an altitude at or above the glide slope between the outer marker (or point of interception of glide slope, if compliance with the applicable distance from clouds criteria requires interception closer in) and the middle marker; and

(3) When operating an airplane approaching to land on a runway served by a visual approach slope indicator, maintain an altitude at or above the glide slope until a lower altitude is necessary for safe landing.

Paragraphs (e)(2) and (e)(3) of this section do not prohibit normal bracketing maneuvers above or below the glide slope that are conducted for the purpose of remaining on the glide slope.

(f) *Approaches.* Except when conducting a circling approach under Part 97 of this chapter or unless otherwise required by ATC, each pilot must—

(1) Circle the airport to the left, if operating an airplane; or

(2) Avoid the flow of fixed-wing aircraft, if operating a helicopter.

(g) *Departures.* No person may operate an aircraft departing from an airport except in compliance with the following:

(1) Each pilot must comply with any departure procedures established for that airport by the FAA.

(2) Unless otherwise required by the prescribed departure procedure for that airport or the applicable distance from clouds criteria, each pilot of a turbine-powered airplane and each pilot of a large airplane must climb to an altitude of 1,500 feet above the surface as rapidly as practicable.

(h) *Noise abatement.* Where a formal runway use program has been established by the FAA, each pilot of a large or turbine-powered airplane assigned a noise abatement runway by ATC must use that runway. However, consistent with the final authority of the pilot in command concerning the safe operation of the aircraft as prescribed in § 91.3(a), ATC may assign a different runway if requested by the pilot in the interest of safety.

(i) *Takeoff, landing, taxi clearance.* No person may, at any airport with an operating control tower, operate an aircraft on a runway or taxiway, or take off or land an aircraft, unless an appropriate clearance is received from ATC. A clearance to "taxi to" the takeoff runway assigned to the aircraft is not a clearance to cross that assigned takeoff runway, or to taxi on that runway at any point, but is a clearance to cross other runways that intersect the taxi route to that assigned takeoff runway. A clearance to "taxi to" any point other than an assigned takeoff runway is clearance to cross all runways that intersect the taxi route to that point.

32. Section 91.130 is revised to read as follows:

§ 91.130 Operations in Class C airspace.

(a) *General.* Each aircraft operation in Class C airspace must be conducted in compliance with this section and § 91.129. For the purpose of this section, the primary airport is the airport for which the Class C airspace area is designated. A satellite airport is any other airport within the Class C airspace area.

(b) *Traffic patterns.* No person may take off or land an aircraft at a satellite airport within a Class C airspace area except in compliance with FAA arrival and departure traffic patterns.

(c) *Communications.* Each person operating an aircraft in Class C airspace must meet the following two-way radio communications requirements:

(1) *Arrival or through flight.* Each person must establish two-way radio communications with the ATC facility (including foreign ATC in the case of foreign airspace designated in the United States) providing air traffic services prior to entering that airspace and thereafter maintain those

communications while within that airspace.

(2) *Departing flight.* Each person—

(i) From the primary airport or satellite airport with an operating control tower must establish and maintain two-way radio communications with the control tower, and thereafter as instructed by ATC while operating in the Class C airspace area; or

(ii) From a satellite airport without an operating control tower, must establish and maintain two-way radio communications with the ATC facility having jurisdiction over the Class C airspace area as soon as practicable after departing.

(d) *Equipment requirements.* Unless otherwise authorized by the ATC having jurisdiction over the Class C airspace area, no person may operate an aircraft within a Class C airspace area designated for an airport unless that aircraft is equipped with the applicable equipment specified in § 91.215.

33. Section 91.131 is revised to read as follows:

§ 91.131 Operations in Class B airspace.

(a) *Operating rules.* No person may operate an aircraft within a Class B airspace area except in compliance with § 91.129 and the following rules:

(1) The operator must receive an ATC clearance from the ATC facility having jurisdiction for that area before operating an aircraft in that area.

(2) Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport for which a Class B airspace area is designated must operate at or above the designated floors of the Class B airspace area while within the lateral limits of that area.

(3) Any person conducting pilot training operations at an airport within a Class B airspace area must comply with any procedures established by ATC for such operations in that area.

(b) *Pilot requirements.*

(1) No person may take off or land a civil aircraft at an airport within a Class B airspace area or operate a civil aircraft within a Class B airspace area unless—

(i) The pilot in command holds at least a private pilot certificate; or

(ii) The aircraft is operated by a student pilot or recreational pilot who seeks private pilot certification and has met the requirements of § 61.95 of this chapter.

(2) Notwithstanding the provisions of paragraph (b)(1)(ii) of this section, no person may take off or land a civil aircraft at those airports listed in section 4 of appendix D of this part unless the

pilot in command holds at least a private pilot certificate.

(c) *Communications and navigation equipment requirements.* Unless otherwise authorized by ATC, no person may operate an aircraft within a Class B airspace area unless that aircraft is equipped with—

(1) *For IFR operation.* An operable VOR or TACAN receiver; and

(2) *For all operations.* An operable two-way radio capable of communications with ATC on appropriate frequencies for that Class B airspace area.

(d) *Transponder requirements.* No person may operate an aircraft in a Class B airspace area unless the aircraft is equipped with the applicable operating transponder and automatic altitude reporting equipment specified in paragraph (a) of § 91.215, except as provided in paragraph (d) of that section.

34. Section 91.135 is revised to read as follows:

§ 91.135 Operations in Class A airspace.

Except as provided in paragraph (d) of this section, each person operating an aircraft in Class A airspace must conduct that operation under instrument flight rules (IFR) and in compliance with the following:

(a) *Clearance.* Operations may be conducted only under an ATC clearance received prior to entering the airspace.

(b) *Communications.* Unless otherwise authorized by ATC, each aircraft operating in Class A airspace must be equipped with a two-way radio capable of communicating with ATC on a frequency assigned by ATC. Each pilot must maintain two-way radio communications with ATC while operating in Class A airspace.

(c) *Transponder requirement.* Unless otherwise authorized by ATC, no person may operate an aircraft within Class A airspace unless that aircraft is equipped with the applicable equipment specified in § 91.215.

(d) *ATC authorizations.* An operator may deviate from any provision of this section under the provisions of an ATC authorization issued by the ATC facility having jurisdiction of the airspace concerned. In the case of an inoperative transponder, ATC may immediately approve an operation within a Class A airspace area allowing flight to continue, if desired, to the airport of ultimate destination, including any intermediate stops, or to proceed to a place where suitable repairs can be made, or both. Requests for deviation from any provision of this section must be submitted in writing, at least 4 days

before the proposed operation. ATC may authorize a deviation on a continuing basis or for an individual flight.

35. Section 91.155 is revised to read as follows:

§ 91.155 Basic VFR weather minimums.

(a) Except as provided in paragraph (b) of this section and § 91.157, no person may operate an aircraft under VFR when the flight visibility is less, or at a distance from clouds that is less, than that prescribed for the corresponding altitude and class of airspace in the following table:

Airspace	Flight visibility	Distance from clouds
Class A.....	Not Applicable.....	Not Applicable.
Class B.....	3 statute miles.....	Clear of Clouds.
Class C.....	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
Class D.....	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
Class E: Less than 10,000 feet MSL.	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
At or above 10,000 feet MSL.	5 statute miles.....	1,000 feet below. 1,000 feet above. 1 statute mile horizontal.
Class G: 1,200 feet or less above the surface (regardless of MSL altitude).	1 statute mile.....	Clear of clouds.
Day, except as provided in § 91.155(b).	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
Night, except as provided in § 91.155(b).		

Airspace	Flight visibility	Distance from clouds
More than 1,200 feet above the surface but less than 10,000 feet MSL.		
Day.....	1 statute mile.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
Night.....	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
More than 1,200 feet above the surface and at or above 10,000 feet MSL.	5 statute miles.....	1,000 feet below. 1,000 feet above. 1 statute mile horizontal.

(b) Class G Airspace.

Notwithstanding the provisions of paragraph (a) of this section, the following operations may be conducted in Class G airspace below 1,200 feet above the surface:

(1) *Helicopter.* A helicopter may be operated clear of clouds if operated at a speed that allows the pilot adequate opportunity to see any air traffic or obstruction in time to avoid a collision.

(2) *Airplane.* When the visibility is less than 3 statute miles but not less than 1 statute mile during night hours, an airplane may be operated clear of clouds if operated in an airport traffic pattern within one-half mile of the runway.

(c) Except as provided in § 91.157, no person may operate an aircraft, under VFR, within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport when the ceiling is less than 1,000 feet.

(d) Except as provided in § 91.157 of this part, no person may take off or land an aircraft, or enter the traffic pattern of an airport, under VFR, within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport—

(1) Unless ground visibility at that airport is at least 3 statute miles; or

(2) If ground visibility is not reported at that airport, unless flight visibility during landing or takeoff, or while operating in the traffic pattern is at least 3 statute miles.

(e) For the purpose of this section, an aircraft operating at the base altitude of a Class E airspace area is considered to

be within the airspace directly below that area.

36. Section 91.157 is revised to read as follows:

§ 91.157 Special VFR weather minimums.

Except as provided in appendix D, section 3 of this part, the following special weather minimums and requirements apply to operations conducted to or from an airport in controlled airspace:

(a) Operations may be conducted only under an ATC clearance—

(1) Within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport; and

(2) Except for helicopters, between sunrise and sunset (or in Alaska, when the sun is 6° or more above the horizon) unless—

(i) That person meets the applicable requirements for instrument flight under part 61 of this chapter; and

(ii) The aircraft is equipped as required in § 91.205(d).

(b) Operations may only be conducted clear of clouds.

(c) Except for helicopters, operations may be conducted only when flight visibility is at least 1 statute mile.

(d) No person may take off or land an aircraft (other than a helicopter)—

(1) Unless ground visibility is at least 1 statute mile; or

(2) If ground visibility is not reported, unless flight visibility during landing and takeoff is at least 1 statute mile.

37. Section 91.215 is amended by revising paragraphs (b) and (d) to read as follows:

§ 91.215 ATC transponder and altitude reporting equipment and use.

(b) *All airspace.* Unless otherwise authorized or directed by ATC, no person may operate an aircraft in the airspace described in paragraphs (b)(1) through (b)(5) of this section, unless that aircraft is equipped with an operable coded radar beacon transponder having either Mode 3/A 4096 code capability, replying to Mode 3/A interrogations with the code specified by ATC, or a Mode S capability, replying to Mode 3/A interrogations with the code specified by ATC and intermode and Mode S interrogations in accordance with the applicable provisions specified in TSO C-112, and that aircraft is equipped with automatic pressure altitude reporting equipment having a Mode C capability that automatically replies to Mode C interrogations by transmitting pressure altitude information in 100-foot increments. This requirement applies—

(1) *All aircraft.* In Class A, Class B, and Class C airspace areas;

(2) *All aircraft.* In all airspace within 30 nautical miles of an airport listed in appendix D, section 1 of this part from the surface upward to 10,000 feet MSL;

(3) Notwithstanding paragraph (b)(2) of this section, any aircraft which was not originally certificated with an engine-driven electrical system or which has not subsequently been certified with such a system installed, balloon or glider may conduct operations in the airspace within 30 nautical miles of an airport listed in appendix D, section 1 of this part provided such operations are conducted—

(i) Outside any Class A, Class B, or Class C airspace area; and

(ii) Below the altitude of the ceiling of a Class B or Class C airspace area designated for an airport or 10,000 feet MSL, whichever is lower; and

(4) All aircraft in all airspace above the ceiling and within the lateral boundaries of a Class B or Class C airspace area designated for an airport upward to 10,000 feet MSL; and

(5) All aircraft except any aircraft which was not originally certificated with an engine-driven electrical system or which has not subsequently been certified with such a system installed, balloon, or glider—

(i) In all airspace of the 48 contiguous states and the District of Columbia at and above 10,000 feet MSL, excluding the airspace at and below 2,500 feet above the surface; and

(ii) In the airspace from the surface to 10,000 feet MSL within a 10-nautical-mile radius of any airport listed in appendix D, section 2 of this part, excluding the airspace below 1,200 feet outside of the lateral boundaries of the surface area of the airspace designated for that airport.

(d) *ATC authorized deviations.*

Requests for ATC authorized deviations must be made to the ATC facility having jurisdiction over the concerned airspace within the time periods specified as follows:

(1) For operation of an aircraft with an operating transponder but without operating automatic pressure altitude reporting equipment having a Mode C capability, the request may be made at any time.

(2) For operation of an aircraft with an inoperative transponder to the airport of ultimate destination, including any intermediate stops, or to proceed to a place where suitable repairs can be made or both, the request may be made at any time.

(3) For operation of an aircraft that is not equipped with a transponder, the

request must be made at least one hour before the proposed operation.

38. Section 91.303 is amended by revising paragraphs (c), (d), and (e) and by adding paragraph (f) to read as follows:

§ 91.303 Aerobatic flight.

(c) Within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport;

(d) Within 4 nautical miles of the center line of any Federal airway;

(e) Below an altitude of 1,500 feet above the surface; or

(f) When flight visibility is less than 3 statute miles.

39. Section 91.309 is amended by revising paragraph (a)(4) to read as follows:

§ 91.309 Towing: Gliders.

(a) * * *

(4) Before conducting any towing operation within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport, or before making each towing flight within such controlled airspace if required by ATC, the pilot in command notifies the control tower. If a control tower does not exist or is not in operation, the pilot in command must notify the FAA flight service station serving that controlled airspace before conducting any towing operations in that airspace; and

40. Section 91.703 is amended by revising paragraph (a)(1) to read as follows:

§ 91.703 Operations of civil aircraft of U.S. registry outside of the United States.

(a) * * *

(1) When over the high seas, comply with annex 2 (Rules of the Air) to the Convention on International Civil Aviation and with §§ 91.117(c), 91.127, 91.129, and 91.131;

41. Section 91.711 is amended by revising paragraph (c)(1)(i) to read as follows:

§ 91.711 Special rules for foreign civil aircraft.

(c) * * *

(1) * * *

(i) Radio equipment allowing two-way radio communication with ATC when it is operated in controlled airspace; and

42. Section 91.905 is amended by adding § 91.126 and revising §§ 91.127,

91.129, 91.130, 91.131, and 91.135 to read as follows:

§ 91.905 List of rules subject to waivers.

* * *

91.126 Operating on or in the vicinity of an airport in Class C airspace.

91.127 Operating on or in the vicinity of an airport in Class E airspace.

91.129 Operations in Class D airspace.

91.130 Operations in Class C airspace.

91.131 Operations in Class B airspace.

* * *

91.135 Operations in Class A airspace.

* * *

43. Appendix D of part 91 is revised to read as follows:

Appendix D—Airports/Locations: Special Operating Restrictions

Section 1. Locations at which the requirements of § 91.215(b)(2) apply.

The requirements of § 91.215(b)(2) apply below 10,000 feet above the surface within a 30-nautical-mile radius of each location in the following list:

Atlanta, GA (The William B. Hartsfield Atlanta International Airport)
Baltimore, MD (Baltimore Washington International Airport)
Boston, MA (General Edward Lawrence Logan International Airport)
Chantilly, VA (Washington Dulles International Airport)
Charlotte, NC (Charlotte/Douglas International Airport)
Chicago, IL (Chicago-O'Hare International Airport)
Cleveland, OH (Cleveland-Hopkins International Airport)
Dallas, TX (Dallas/Fort Worth Regional Airport)
Denver, CO (Stapleton International Airport)
Detroit, MI (Metropolitan Wayne County Airport)
Honolulu, HI (Honolulu International Airport)
Houston, TX (Houston Intercontinental Airport)
Kansas City, KS (Mid-Continent International Airport)
Las Vegas, NV (McCarran International Airport)
Los Angeles, CA (Los Angeles International Airport)
Memphis, TN (Memphis International Airport)
Miami, FL (Miami International Airport)
Minneapolis, MN (Minneapolis-St. Paul International Airport)
Newark, NJ (Newark International Airport)
New Orleans, LA (New Orleans International Airport-Moisant Field)
New York, NY (John F. Kennedy International Airport)
New York, NY (LaGuardia Airport)
Orlando, FL (Orlando International Airport)
Philadelphia, PA (Philadelphia International Airport)
Phoenix, AZ (Phoenix Sky Harbor International Airport)
Pittsburgh, PA (Greater Pittsburgh International Airport)
St. Louis, MO (Lambert-St. Louis International Airport)

Salt Lake City, UT (Salt Lake City International Airport)
 San Diego, CA (San Diego International Airport)
 San Francisco, CA (San Francisco International Airport)
 Seattle, WA (Seattle-Tacoma International Airport)
 Tampa, FL (Tampa International Airport)
 Washington, DC (Washington National Airport)

Section 2. Airports at which the requirements of § 91.215(b)(5)(ii) apply. The requirements of § 91.215(b)(5)(ii) apply to operations in the vicinity of each of the following airports:

Billings, MT (Logan International Airport)
 Section 3. Locations at which Special VFR operations are prohibited.

The Special VFR weather minimums of § 91.157 do not apply to the following airports:

Atlanta, GA (The William B. Hartsfield Atlanta International Airport)
 Baltimore, MD (Baltimore/Washington International Airport)
 Boston, MA (General Edward Lawrence Logan International Airport)
 Buffalo, NY (Greater Buffalo International Airport)
 Chicago, IL (Chicago-O'Hare International Airport)
 Cleveland, OH (Cleveland-Hopkins International Airport)
 Columbus, OH (Port Columbus International Airport)
 Covington, KY (Greater Cincinnati International Airport)
 Dallas, TX (Dallas/Fort Worth Regional Airport)
 Dallas, TX (Love Field)
 Denver, CO (Stapleton International Airport)
 Detroit, MI (Metropolitan Wayne County Airport)
 Honolulu, HI (Honolulu International Airport)
 Houston, TX (Houston Intercontinental Airport)
 Indianapolis, IN (Indianapolis International Airport)
 Los Angeles, CA (Los Angeles International Airport)
 Louisville, KY (Standiford Field)
 Memphis, TN (Memphis International Airport)
 Miami, FL (Miami International Airport)
 Minneapolis, MN (Minneapolis-St. Paul International Airport)
 Newark, NJ (Newark International Airport)
 New York, NY (John F. Kennedy International Airport)
 New York, NY (LaGuardia Airport)
 New Orleans, LA (New Orleans International Airport-Moisant Field)
 Philadelphia, PA (Philadelphia International Airport)
 Pittsburgh, PA (Greater Pittsburgh International Airport)
 Portland, OR (Portland International Airport)
 San Francisco, CA (San Francisco International Airport)
 Seattle, WA (Seattle-Tacoma International Airport)
 St. Louis, MO (Lambert-St. Louis International Airport)
 Tampa, FL (Tampa International Airport)

Washington, DC (Washington National Airport)

Section 4. Locations at which solo student pilot activity is not permitted.

Pursuant to § 91.131(b)(2), solo student pilot operations are not permitted at any of the following airports.

Atlanta, GA (The William B. Hartsfield Atlanta International Airport)
 Boston, MA (General Edward Lawrence Logan International Airport)
 Chicago, IL (Chicago-O'Hare International Airport)
 Dallas, TX (Dallas/Fort Worth Regional Airport)
 Los Angeles, CA (Los Angeles International Airport)
 Miami, FL (Miami International Airport)
 Newark, NJ (Newark International Airport)
 New York, NY (John F. Kennedy International Airport)
 New York, NY (LaGuardia Airport)
 San Francisco, CA (San Francisco International Airport)
 Washington, DC (Washington National Airport)
 Andrews Air Force Base, MD

PART 93—SPECIAL AIR TRAFFIC RULES AND AIRPORT TRAFFIC PATTERNS

44. The authority citation for part 93 is revised to read as follows:

Authority: 49 U.S.C. app. 1302, 1303, 1348, 1354(a), 1421(a), 1424, 2451 *et seq.* 49 U.S.C. 100(g).

45. Section 93.1 is amended by revising paragraph (b) to read as follows:

§ 93.1 Applicability.

(b) Unless otherwise authorized by ATC, each person operating an aircraft shall do so in accordance with the special air traffic rules in this part in addition to other applicable rules in Part 91 of this chapter.

Subparts I, N, O, Q, and R [Removed and Reserved]

46. Part 93 is amended by removing and reserving subparts I (§§ 93.111–93.113), N (§§ 93.161–93.163), O (§§ 93.171–93.175), Q (§§ 93.195–93.199), and R (§§ 93.200–93.208).

47. Section 93.151 is amended by revising the introductory text to read as follows:

§ 93.151 Applicability.

This subpart prescribes special air traffic rules and communications requirements for persons operating aircraft, under VFR, below 2,500 feet MSL within the lateral boundaries of the surface area of the Class E airspace area designated for Ketchikan International Airport, Alaska, excluding that airspace below 600 feet MSL and—

* * * * *

PART 101—MOORED BALLOONS, KITES, UNMANNED ROCKETS AND UNMANNED FREE BALLOONS

48. The authority citation for part 101 is revised to read as follows:

Authority: 49 U.S.C. app. 1348, 1354, 1372, 1421, 1442, 1443, 1472, 1510, and 1522.

49. Section 101.33(a) is revised to read as follows:

§ 101.33 Operating limitations.

(a) Unless otherwise authorized by ATC, below 2,000 feet above the surface within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport;

* * * * *

PART 103—ULTRALIGHT VEHICLES

50. The authority citation for part 103 is revised to read as follows:

Authority: 49 U.S.C. app. 1348, 1354(a), 1421(a), 1422, and 1423; 49 U.S.C. 1655(c).

51.–52. Section 103.17 is revised to read as follows:

§ 103.17 Operations in certain airspace.

No person may operate an ultralight vehicle within Class A, Class B, Class C, or Class D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport unless that person has prior authorization from the ATC facility having jurisdiction over that airspace.

53. Section 103.23 is revised to read as follows:

§ 103.23 Flight visibility and cloud clearance requirements.

No person may operate an ultralight vehicle when the flight visibility or distance from clouds is less than that in the table found below. All operations in Class A, Class B, Class C, and Class D airspace or Class E airspace designated for an airport must receive prior ATC authorization as required in § 103.17 of this part.

Airspace	Flight visibility	Distance from clouds
Class A.....	Not applicable.....	Not Applicable.
Class B.....	3 statute miles.....	Clear of Clouds.
Class C.....	3 statute miles.....	500 feet below, 1,000 feet above, 2,000 feet horizontal.
Class D.....	3 statute miles.....	500 feet below, 1,000 feet above, 2,000 feet horizontal.

Airspace	Flight visibility	Distance from clouds
Class E: Less than 10,000 feet MSL.	3 statute miles.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
At or above 10,000 feet MSL.	5 statute miles.....	1,000 feet below. 1,000 feet above. 1 statute mile horizontal.
Class G: 1,200 feet or less above the surface (regardless of MSL altitude).	1 statute mile.....	Clear of clouds.
More than 1,200 feet above the surface but less than 10,000 feet MSL.	1 statute mile.....	500 feet below. 1,000 feet above. 2,000 feet horizontal.
More than 1,200 feet above the surface and at or above 10,000 feet MSL.	5 statute miles.....	1,000 feet below. 1,000 feet above. 1 statute mile horizontal.

PART 105—PARACHUTE JUMPING

54. The authority citation for part 105 is revised to read as follows:

Authority: 49 U.S.C. App. 1348, 1354, and 1421; 49 U.S.C. 106(g).

55.-56. Section 105.19 is revised to read as follows:

§ 105.19 Jumps in or into Class A, Class B, Class C, and Class D airspace.

(a) No person may make a parachute jump, and no pilot in command may allow a parachute jump to be made from that aircraft, in or into Class A, Class B, Class C, and Class D airspace without, or in violation of, the terms of an ATC authorization issued under this section.

(b) Each request for an authorization under this section must be submitted to the nearest FAA air traffic control facility or FAA flight service station and must include the information prescribed by § 105.25(a).

§ 105.20 [Removed and Reserved]

57. Section 105.20 is removed and reserved.

§ 105.21 [Removed and Reserved]

58. Section 105.21 is removed and reserved.

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

59. The authority citation for part 121 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g).

60. Section 121.347 is amended by revising paragraph (a)(2) to read as follows:

§ 121.347 Radio equipment for operations under VFR over routes navigated by pilotage.

(a) * * *

(2) Communicate with appropriate traffic control facilities from any point within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport in which flights are intended.

61. Section 121.649 is amended by revising paragraph (c) to read as follows:

§ 121.649 Takeoff and landing weather minimums: VFR: Domestic air carriers.

* * *

(c) The weather minimums in this section do not apply to the VFR operation of fixed-wing aircraft at any of the locations where the special weather minimums of § 91.157 of this chapter are not applicable (See part 91, appendix D, section 3 of this chapter). The basic VFR weather minimums of § 91.155 of this chapter apply at those locations.

PART 127—CERTIFICATION AND OPERATIONS OF SCHEDULED AIR CARRIERS WITH HELICOPTERS

62. The authority citation for part 127 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1421, 1422, 1423, 1424, 1425, 1430; 49 U.S.C. 106(g).

63. Section 127.125 is amended by revising paragraph (b) to read as follows. The introductory text of the section is republished for the convenience of the reader.

§ 127.125 Radio equipment for operations over routes navigated by pilotage.

No person may operate a helicopter over a route that can be navigated by pilotage, unless the helicopter is equipped with the radio equipment needed to perform the following functions under normal operating conditions:

* * *

(b) Communicate with ATC towers from any point within the lateral boundaries of the surface areas of Class B, Class D, Class C, or Class D airspace designated for an airport in which flights are intended.

* * *

PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS

64. The authority citation for part 135 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355(a), 1421 through 1431, and 1502; 49 U.S.C. 106(g).

65. Section 135.205 is amended by revising paragraph (b) introductory text to read as follows:

§ 135.205 VFR: Visibility requirements.

* * *

(b) No person may operate a helicopter under VFR in Class G airspace at an altitude of 1,200 feet or less above the surface or within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport unless the visibility is at least—

* * *

PART 137—AGRICULTURAL AIRCRAFT OPERATIONS

66. The authority citation for part 137 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1348(c), 1421, and 1427.

67. Section 137.43 is revised to read as follows:

§ 137.43 Operations in controlled airspace designated for an airport.

(a) Except for flights to and from a dispensing area, no person may operate an aircraft within the lateral boundaries of the surface area of Class B, Class C, or Class D airspace designated for an airport unless authorization for that operation has been obtained from the ATC facility having jurisdiction over that area.

(b) No person may operate an aircraft in weather conditions below VFR minimums within the lateral boundaries of a Class E airspace area that extends upward from the surface unless authorization for that operation has been obtained from the ATC facility having jurisdiction over that area.

(c) Notwithstanding § 91.157(a)(2) of this chapter, an aircraft may be operated under the special VFR weather minimums without meeting the requirements prescribed therein.

PART 139—CERTIFICATION AND OPERATIONS: LAND AIRPORTS SERVING CERTAIN AIR CARRIERS

68. The authority citation for part 139 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a) and 1432; 49 U.S.C. 106(g).

69. Section 139.323 is amended by revising paragraph (a) to read as follows:

§ 139.323 Traffic and wind direction indicators.

(a) A wind cone that provides surface wind direction information visually to pilots. For each airport in a Class B airspace area, supplemental wind cones must be installed at each runway end or at least at one point visible to the pilot while on final approach and prior to takeoff. If the airport is open for air carrier operations during hours of darkness, the wind direction indicators must be lighted.

PART 171—NON-FEDERAL NAVIGATION FACILITIES

70. The authority citation for part 171 is revised to read as follows:

Authority: 49 U.S.C. app. 1343, 1346, 1348, 1354(a), 1355, 1401, 1421–1430, 1472(c), 1502, and 1522; 49 U.S.C. 106(g).

71. Section 171.9 is amended by revising paragraphs (e)(1) and (e)(2) to read as follows:

§ 171.9 Installation requirements.

(e) * * *

(1) At facilities outside of and not immediately adjacent to controlled airspace, there must be ground-air communications from the airport served by the facility. Separate communications channels are acceptable.

(2) At facilities within or immediately adjacent to controlled airspace, there must be the ground-air communications required by paragraph (e)(1) of this section and reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communication facility. Paragraphs (e) (1) and (2) of this section are not mandatory at airports where an adjacent FAA facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace and where extensive delays are not a factor, the requirements of paragraphs (e) (1) and (2) of this

section may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communication facility, if an adjacent FAA facility can communicate with aircraft during the proposed instrument approach procedure, at least down to the minimum en route altitude for the controlled airspace area.

72. Section 171.29 is amended by revising paragraphs (d)(1) and (d)(2) as follows:

§ 171.29 Installation requirements.

(d) * * *

(1) At facilities outside of and not immediately adjacent to controlled airspace, there must be ground-air communications from the airport served by the facility. Voice on the aid controlled from the airport is acceptable.

(2) At facilities within or immediately adjacent to controlled airspace, there must be the ground-air communications required by paragraph (d)(1) of this section and reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communication facility. Paragraphs (d) (1) and (2) of this section are not mandatory at airports where an adjacent FAA facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of paragraphs (d) (1) and (2) of this section may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communication facility, if an adjacent FAA facility can communicate with aircraft during the proposed instrument approach procedure, at least down to the minimum en route altitude for the controlled airspace area.

73. Section 171.49 is amended by revising paragraph (e) to read as follows:

§ 171.49 Installation requirements.

(e) The facility must have, or be supplemented by (depending on the circumstances) the following ground-air or landline communications services:

(1) At facilities outside of and not immediately adjacent to controlled airspace, there must be ground-air communications from the airport served by the facility. The utilization of voice on the ILS frequency should be

determined by the facility operator on an individual basis.

(2) At facilities within or immediately adjacent to controlled airspace, there must be the ground-air communications required by paragraph (e)(1) of this section and reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communications facility. Paragraphs (e)(1) and (e)(2) of this section are not mandatory at airports where an adjacent FAA facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of paragraphs (e)(1) and (e)(2) of this section may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communications facility, if an adjacent FAA facility can communicate with aircraft during the proposed instrument approach procedure down to the airport surface or at least to the minimum approach altitude.

74. Section 171.113 is amended by revising paragraph (f) to read as follows:

§ 171.113 Installation requirements.

(f) The facility must have the following ground-air or landline communication services:

(1) At facilities outside of and not immediately adjacent to controlled airspace, there must be ground-air communications from the airport served by the facility. The utilization of voice on the SDF should be determined by the facility operator on an individual basis.

(2) At facilities within or immediately adjacent to controlled airspace, there must be ground-air communications required by paragraph (b)(1) of this section and reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility. Compliance with paragraphs (f) (1) and (2) of this section need not be shown at airports where an adjacent Federal Aviation Administration facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of paragraphs (f) (1) and (2) of this section may be reduced to

reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility, if an adjacent Federal Aviation Administration facility can communicate with aircraft during the proposed instrument approach procedure down to the airport surface or at least down to the minimum approach altitude.

75. Section 171.159 is amended by revising paragraphs (e) (1) and (e)(2) as follows:

§ 171.159 Installation requirements.

(e) * * *

(1) At facilities outside of and not immediately adjacent to controlled airspace, there must be ground-air communications from the airport served by the facility. Separate communications channels are acceptable.

(2) At facilities within or immediately adjacent to controlled airspace, there must be the ground-air communications required by paragraph (e)(1) of this section and reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility. Separate communications channels are acceptable.

Compliance with paragraphs (e) (1) and (2) of this section need not be shown at airports where an adjacent Federal Aviation Administration facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of paragraphs (e) (1) and (2) of this section may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility, if an adjacent Federal Aviation Administration facility can communicate with aircraft during the proposed instrument approach procedure, at least down to the minimum en route altitude for the controlled airspace area.

76. Section 171.209 is amended by revising paragraph (d) to read as follows:

§ 171.209 Installation requirements.

(d) At facilities within or immediately adjacent to controlled airspace and that are intended for use as instrument approach aids for an airport, there must be ground-air communications or reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communication facility. Compliance with this paragraph need not be shown at airports where an adjacent Federal Aviation Administration facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of this paragraph may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility, if an adjacent Federal Aviation Administration facility can communicate with aircraft during the proposed instrument approach procedure, at least down to the minimum en route altitude for the controlled airspace area.

77. Section 171.271 is amended by revising paragraph (e) to read as follows:

§ 171.271 Installation requirements.

(e) The facility must have, or be supplemented by, ground-air or landline communications services. At facilities within or immediately adjacent to controlled airspace and that are intended for use as instrument approach aids for an airport, there must be ground-air communications or reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communication facility. Compliance with this paragraph need not be shown at airports where an adjacent Federal Aviation Administration facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach

procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of this paragraph may be reduced to reliable communications (at least a landline telephone) from the airport to the nearest Federal Aviation Administration air traffic control or communications facility, if an adjacent Federal Aviation Administration facility can communicate with aircraft during the proposed instrument approach procedure, at least down to the minimum en route altitude for the controlled area.

78. Section 171.323 is amended by revising paragraph (i) to read as follows:

§ 171.323 Fabrication and installation requirements.

(i) The facility must have, or be supplemented by, ground, air, or landline communications services. At facilities within or immediately adjacent to controlled airspace, that are intended for use as instrument approach aids for an airport, there must be ground air communications or reliable communications (at least a landline telephone) from the airport to the nearest FAA air traffic control or communication facility. Compliance with this paragraph need not be shown at airports where an adjacent FAA facility can communicate with aircraft on the ground at the airport and during the entire proposed instrument approach procedure. In addition, at low traffic density airports within or immediately adjacent to controlled airspace, and where extensive delays are not a factor, the requirements of this paragraph may be reduced to reliable communications from the airport to the nearest FAA air traffic control or communications facility. If the adjacent FAA facility can communicate with aircraft during the proposed instrument approach procedure down to the airport surface or at least down to the minimum en route altitude, this would require at least a landline telephone.

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James B. Busey,
Administrator.

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